JPRS 77371 11 February 1981

USSR Report

MILITARY AFFAIRS

No. 1567



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GREATER INITIATIVE IN FLIGHT TACTICS STRESSED

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 12, 1980 pp 1-3

[Article by Lt Gen Avn P. Bazanov, Hero of the Soviet Union and USSR Honored Military Pilot: "The Traditions of the Combat Veterans are Our Wealth"]

[Text] A new training year has started in the Air Force units and subunits. The military aviators are steadfastly mastering the assigned equipment and weapons, and are gaining the science of winning. The commanders, political workers, the staff officers, and the party and Komsomol organizations are directing the political activities and creative enthusiasm of the personnel at further improving professional skills and raising vigilance and combat readiness.

During the past training year, the military aviators achieved high results in military and political training, and they carried out the socialist obligations assumed in honor of the 110th anniversary of the birthday of V. I. Lenin and the 35th anniversary of the victory of the Soviet people in the Great Patriotic War. There has been a significant rise in the professional skill of the flight and engineer-technical personnel of the Air Force. As the final inspection showed, particularly significant successes had been achieved in those units and subunits where in the military and political training they strictly adhere to a policy of efficiency and quality, where use has been made of advanced methods for organizing and conducting the exercises, training sessions, flights, drills and work on the aviation and support equipment under conditions as close as possible to actual combat, and where the socialist competition has become an ins parable part of the training process.

In speaking at a ceremony in Alma-Ata devoted to the 60th anniversary of Kazakhstan and the Kazakh Communist Party, the General Secretary of the CPSU Central Committee and Chairman of the Presidium of the USSR Supreme Soviet, Comrade L. I. Brezhnev, said: "Our valorous Armed Porces possess everything necessary to repel any aggressor." In the combat training of the military aviators the most important place is held by the study of tactics and assimilating the methods and procedures for the combat employment of the aviation equipment and weapons.

The experience of the Great Patriotic War indicates that tactics is the second weapon of a soldier. Without mastering the procedures of the combat employment of his aircraft and without possessing developed tactical thinking, a flier often puts himself and his comrades in a very difficult position or simply becomes a target for the enemy.

Let us take up just one of the important principles of tactics such as combat activeness. As is known, in an air engagement, with other conditions being equal, the victorious side is the one which is more determined, inventive and tenacious, where each instant there is a struggle to take the initiative, to thwart the plans and ideas of the enemy, and impose one's will on the enemy. At present this concept has gained a new content. The procedures for combating the enemy have altered substantially. Among these one could put the increased might of the air strikes, the use of gunships, the confusing of the enemy by spurious maneuvers, and much else.

The same can be said of the principle of cooperation. The pace of modern combat operations, in comparison with the pace of the times of World War II, has increased many fold. This circumstance places more rigid demands upon the air skills of the pilots, on their tactical thinking, and their ability to correctly organize air support for the ground troops.

The advance commanders do everything so that the flight personnel profoundly studies the combat equipment, knows its maneuvering and firing capabilities, commands the aircraft or helicopter like a virtuoso, accurately bombs, fires guns or missiles, and is able to skillfully implement a tactical plan.

While in school the future pilots gain the bases of tactics for aviation and the other armed services and branches of troops with which it cooperates. Subsequently, as flight experience is gained, the pilots improve and deepen their knowledge and broaden their military viewpoint. Each aviation unit has its own special tactical classroom. In their majority these have been turned into a sort of training center. Here in accord with the set conditions, the elements of combat employment and the procedures for conducting combat are creatively reasoned out. For example, in the regiment where one of the squadrons is under the command of Maj A. Pochitalkin, many pilots and combat control officers participated in equipping this auditorium. The classroom has a stand making it possible, depending upon the situation, to simulate one or another procedure or maneuver, instruments for analyzing the results of combat employment, a mock-up of the range with a variable situation for the attack of ground targets, as well as various models of aircraft in the armies of the capitalist states where the most vulnerable spots have been marked. The flight personnel trains willingly for the flights in this classroom. Moreover, in the regiment lectures are given on a high pedagogical level, class-group and special tactical exercises, seminars and tactical quizzes are conducted, and during them in a professional and creative situation, each aviator can voice his opinion and propose a solution. With good reason the air fighters of this unit year after year demonstrate high piloting, firing and tactical skills.

At the recently held tactical flight exercise with field firing, the pilots of the squadron headed by officer Pochitalkin carried out all the flight missions with a high grade. Abrupt changes in the air situation and active "enemy" resistance did not catch them unaware. Under very difficult conditions, the flight commander, Maj V. Lesnikov, precisely implemented the combat plan and emerged the winner. To a large degree his success was aided by the well organized cooperation with the team of the control tower, by the previously conducted joint training sessions and play-throughs, and by the skillful and continuous control of the group in combat.

However, unfortunately, there are also classrooms where the equipment does not always meet the requirements of tactical training. The visual aids in them actually show more of the inventiveness and resourcefulness of their developers than the effective use in special training. Tactics constantly needs improving. This is also required by the continuously replaced means of combat. The training facilities and the air space over the airfield are the creative laboratory of the commanders and the pilots.

In order to learn to be victorious over a strong, technically well equip, ed enemy, it is essential on a planned and effective basis to study the enemy's strong and weak points, his equipment and tactics. In the units and subunits, exercises are conducted on these subjects and lectures are given. However, this is not enough. Each air fighter must independently, day after day, work on the appropriate literature. First of all it is important to know the aviation and weapons of the armies which are members of the most aggressive NATO bloc.

In daily training, flight personnel does not encounter real fire resistance. This, undoubtedly, places a definite impression on the moral and psychological readiness of the air fighters to overcome difficulties. But well thought out organization of the flights for combat employment and the appropriate tactical background bring great benefit. After a heated engagement in the skies, the winner and the loser as well as their commanders, in a professional situation, analyze in detail the omissions and mistakes, and add the successful procedures and maneuvers to their tactical knowledge. They are helped substantially by the objective monitoring devices and by the exchange of experience in exercises, quizzes and conferences.

It is said that you learn from mistakes. And we must agree with this. A pilot who has made a serious mistake once and who has thoroughly analyzed the reason for it, he would scarcely stumble over this again. Nevertheless, it is a very bad thing if one learns only from one's mistakes. It is essential to consider and bear in mind each unsuccessful instance regardless of where it may occur. And the aviators receive the corresponding information for this. But the person who feels that a mistake can be made by anyone as long as not by him dooms himself to failure in a difficult situation.

Constant vigilance and a readiness to take immediate and decisive action—this, it seems to me, is the normal state of an air fighter, while weakness and passivity are sources of defeat. I will never forget 9 May 1943. On that day, eight of us took off to cover the battlefield. The group was under the command of the squadron commander, Sr Lt M. Mudrov. We were flying in a left echelon of the flights at a distance of 1.5-2 km. But there were also flights in right echelons in intervals and distances of 80 meters between the aircraft.

As soon as the group had reached an altitude of 5,000 meters, the commander announced the approach of the boundary of the air patrol zone. And at this time over the radio we heard the information of the guidance station: "Lavochkins, there are Fockes beneath you!" Naturally each pilot began to search for the enemy beneath himself. Soon the group leader commanded: "Right turn!"

Keeping the flight of the commander in my sight, I simultaneously endeavored to spot the enemy. And suddenly some inner force made me glance around. A FW-190 was sitting directly on my tail. Instinctively I abruptly reduced power and had just

moved the pedal forward when I felt a jolt. A sharp pain pierced my left leg. Splinters flew from the side and wing. The aircraft at first began to roll and then stalled. I was able to stop the rell only at an altitude of around 2,000 meters. Our airfield was nearby. Somehow I reached it and headed into my landing. But I could not lower the wheels due to damage to the landing system. I had to make a belly landing.

In the hospital I had a good deal of time to reflect about the cause of my defeat. The conclusions were most disturbing. In the first place, I had forgotten circumspection. In relying on information from the ground and in searching in the lower hemisphere, I overlooked that the enemy could echelon his battle formation. And this is what happened. Secondly, mutual control and support in the flight were weak. Ordinarily a turn for the wingmen requires more attention from the pilots for maintaining proper position. And here everyone was so involved with looking that we even did not notice the disappearance of the leader.

Moreover, the battle formation this time (more accurately, the position of the aircraft in it) did not correspond to the flight conditions. The squadron commander mentioned this in analyzing the air combat. The right echelon of the aircraft in 'he left echelon of the flights did not provide freedom of manauvering and fire support between the crews. What was the matter?

On the day before our eight planes of the same formation had been accompanying ground a tack planes. The battle formation of the cover fighters was analogous with the sole difference that the second flight was behind the group of "Ils" 1,000 meters above them. At that time the given mission was successfully carried out. The ground attack them and a heavy strike against the Nazi troops on the battle-field. And although "he corschmitts" endeavored to attack them, not one was able to break through the screen or "there. Moreover, after a bold attack by the first pair, the enemy lost two airce ft. There could only be one conclusion: there are neither good nor bad battle to mations, there are merely those which correspond or do not correspond to the specific situation.

Incidentally, we were reminded of this by the diruments which were issued to the air units by the staffs of the air armies and the tir Force, where combat experience was being continuously analyzed and generalize. In particular, one of the recommendations stated that the battle formations and orders which are excessively close and not echeloned in altitude complicate the observance of the air and impede reciprocal support. The groups are vulnerable and are quickly scattered with a surprise enemy attack and do not provide organized resistance and cooperation in combat. Attacks in such formations are also ineffective as the trailing pilots in essence cannot aim.

We gathered experience in fierce air engagements. New tactics was born along with more rational combat procedures. The fighters began to use open battle formations with vertical separation, the so-called stacks. This widened the limits of observation over the air space, it provided freedom of maneuver in groups, mutual support and help in combat, and gave many other advantages. But at the same time, we role of the commanders of the groups, flights and pairs increased sharply in controlling the aircraft in combat, as well as the responsibility of the pilots for their actions. On the front, initiative and creativity were encouraged in every possible way while there was strict punishment for those who violated flight

discipline. It also did happen, although infrequently, that in anticipation of an easy victory, pilots, particularly young ones, abandoned the leader and dashed after the enemy, leaving the commander exposed. Undoubtedly such actions were viewed as a flagrant deviation from the laws of air combat.

On the other hand, all the fliers became aware of each new find and successful procedure or maneuver after careful discussion and analysis. I recall the commander of our regiment, Hero of the Soviet Union, Guards Lt Col G. Prokopenko, even during the fullest days, when we had to make several sorties each, after each of them, assembled the pilots directly alongside the aircraft and analyzed the flight. At times, I was amazed with what he could spot. The commander praised enterprising and intelligent actions and was strict on passivity or unjustified actions. To see everything is one of the indicators of maturity in a fighter pilot.

Incidentally, in his instructions the Red Army Air Force commander demanded that the commanders of formations "encourage in every possible way those squadron and flight commanders who in each combat sortic employ new procedures for countering the enemy, who diversify the forms and methods of their actions, using boldness, cleverness, surprise, and, as a consequence of all of this, do not suffer losses. The combat deeds of these commanders as a model of the best should be brought to the attention of all crews, subunits and units."

The political workers, the party and Komsomol activists played a major role in disseminating advanced experience. They conducted individual indoctrination with the personnel, and effectively propagandized advanced experience of the best aviators and group leaders. The wall newspapers and bulletins were attractively made up, and these described in detail the air engagements conducted, with attention being paid to new tactical finds. Often the newspapers printed diagrams which the participants of the engagement themselves helped work out.

Under present-day conditions, the role of the commander who controls the battle and the independence of the pilots in taking and carrying out decisions have risen. for the spatial limits of battle have become much greater, along with the dynamics of the equipment and the capabilities of the sight complexes and weapons to detect and destroy the enemy. The combat control officer has come to the sid of the pilot. He has become a full participant in the battle. Consequently, the officers of the command posts, like the pilots, must thoroughly study the tactics of their own and the enemy air force, participate in working out the combat plan and prepare for flights for combat employment. It is essential to turn systematically to the experience of the Great Patriotic War and from the treasurehouse of the past select the proper examples, and considering modern equipment and weapons and the methods of conducting combat operations, introduce these into training practices. The veterans who have gone through the crucible of the war remember interesting facts which cannot be found in the literature. And their experience adds greatly to the knowledge of the young aviators about the war. This same aim is served by speeches given by former fighter pilots to them. Detailed analyses of various tactical procedures employed in training battles, their analysis, conclusions and specific recommendations become a great support in acquiring mastery.

The improving of tactical mastery depends directly upon the creative, professional atmosphere in the troop collectives, upon the skillful dissemination of advanced experience and its rapid introduction into life. Here a broad field of activity is

opened up for effective party political work by the party and Komsomol organizations and their combat activists. In the new training year, each minute of exercises, training and flights must be used with maximum benefit for raising combat readiness. All the conditions have been created in the units and subunits for this.

In the struggle to carry out the socialist obligations assumed in honor of the 26th CPSU Congress, an important task of all the commanders, political bodies and staffs is to disclose the new opportunities to further improve the quality of the piloting and gunnery skills of the fighter pilots and to steadfastly introduce modern procedures for improving tactical skills into the combat training process.

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TACTICAL SKILLS OF ACE FIGHTER PILOT DESCRIBED

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 12, 1980 pp 4-5

[Article by Col Yu. Belyayev: "Free-Lance Hunting for You"]

[Text] The aerobatics figures followed one after the other. Loops, half-loops and half-rolls, enormously steep humps, vertical and horizontal rolls, both single and double, and turns on ascending and descending trajectories. And all of this at a rapid pace, in one breath. The fighter made another series of ascending rolls and then seemed to dissolve in the blue of the sky. You could feel that the supersonic missile-carrying aircraft was under the control of the firm and powerful hand of a master.

The aircraft was piloted by Guards Maj S. Bezlyudnyy, the deputy squadron commander of the masters of combat employment. The subunit where he serves is leading in the socialist competition to properly celebrate the 26th CPSU Congress.

Officer Bezlyudnyy is of medium height, with an open sincere face. In his slightly squinting eyes there shine devilish sparks and his face is constantly beaming. He speaks warmly about his combat comrades and recalls his teachers. And the first among them is the squadron commander, Officer Ye. Avedikov. Yevgeniy Mikhaylovich [Avedikov] is now serving far from the airfield where the unit is serving. But each time he has the chance, he travels to see his fellow servicemen, and is interested in the concerns of the subunit and gives intelligent advice.

Bezlyudnyy took over the squadron from a school where he worked as an instructor pilot. In a short period of time he caught up with his more experienced comrades, and began receiving high grades for the most difficult exercises.

"What do you feel if we were to include you in the aerobatics group?" Avedikov once asked him.

"I admit that the commander's proposal is somewhat perplexing to me," said Guards Maj Bezlyudnyy. "In school and after it for some reason I was not very fond of group flights. Here it was essential not only to keep one's place in the flight formation, but also perform very complex figures. Incidentally I did not want to give up."

And it was not in Sergey's [Bezlyudnyy] character to give up. And he took to the new type of training with his former eagerness. First there were several flights

with an instructor on the combat training aircraft, and then solo training as part of groups consisting of two, four and six fighters. And in the intervals between the sorties there was even the more profound study of practical aerodynamics, the aerobatics performance of the aircraft, and an analysis of the fine points of each question concerning the complex maneuvering in the closed formation.

The flights provided the required practice. And a role was also pla, the advice of the flight commander, Officer A. Kudryavtsev, the experienced aerobatic pilots Officers B. Grabovetskiy, A. Bokach and P. Zubets, and the squadron commander. After one of the sorties, Avedikov concluded:

"Excellent!"

This praise gave Sergey confidence in his abilities and inspired him to even more persistent work.

"I would say," recalled Bezlyudnyy, "that our growth, and advanced aerobatics at that time was being mastered by a group of young pilots in the squadron, was aided not only by the high professional skill of the commanders and the personal endeavor, but to a great degree by the fact that the squadron commander skillfully combined training with indoctrination."

"Of course, it is essential to perform excellently the various figures separately and together," we reasoned then, "but in group aerobatics, the sport or demonstration element is too apparent. Is this necessary?" In truth, we did not voice such thoughts outloud, and if this conversation came up, it was in our immediate circle. But Yevgeniy Mikhaylovich, as if guessing our mood, often repeated:

"You are fighter pilots, and hence, fighters. Previously a victory in combat left on the sidelines those fliers who, in possessing courage, tactical and gunnery skills and good responses, could, as they say, get everything from the aircraft that it was capable of. At present the role of personal skills has increased further, as combat in the air has become faster and more dynamic. And think about this first when you are in the cockpit, maintaining each kilometer of speed and each meter of altitude."

Several years have passed since then. Sergey Bezlyudnyy has become a deputy squadron commander and has long since received first class. Many times he has demonstrated group and solo aerobatics to his comrades, to servicemen from the ground forces who have come to the airfield, and to guests from overseas. And he teaches aerobatics to others. And he remembers firmly those words of Avedikov. He has been repeatedly convinced of the correctness of the schunit commander that skillful mastery of a modern fighter lends a hand in the most difficult air situation.

The tactical flight exercise was in full swing. The two-plane element of Guards Maj S. Bezlyudnyy using the afterburner headed off into the skies which were covered solid by low clouds. All the thoughts of the pilots were now focused on one thing: to locate the target at a maximum distance away from the installation which the fighters were protecting, and with tactical skill attack and shoot down the "enemy" with the first missiles. The flight would determine how the socialist obligations were being carried out in the competition.

"62, your course is...altitude...," transmitted the aircraft controller.

The first data on the "enemy" as yet were very general. Guards Maj Bezlyudnyy did not have enough for a preliminary evaluation of the developing situation. The flyer's attention was focused on the instruments and he maintained the parameters flavlessly.

They broke through the clouds. The engine control lever was moved from the stop of the afterburner mode as fuel had to be saved as the flight could be a long one. The vingman was precisely keeping his place in the battle formation. Over the airwaves came new information from the ground:

"62, afterburner, climb to altitude "

The arrow of the speed indicator wiggled and moved to the right on the dial. The rate of climb increased sharply. In carrying out the instructions of the command post, the first-class air fighter carefully watched the space around, and even move the screen of the radar sight.

"To the target ...," announced the aircraft controller.

"Roger."

There it was, the "blip," the pulse of energy returned from the "enemy" aircraft. From the movement of the blip, Bezlyudnyy accurately guessed the maneuver of the target in terms of course and altitude. The experienced pilot who had mastered well the laws of air combat not only precisely repeated the moves of the "enemy" but even anticipated them as a tactical duel will not tolerate compromises.

An advantageous position was taken for opening fire. His finger rested on the firing button. An instant later and it was down. A few seconds later he informed his wingman:

"Launch made."

On the ground after landing, the monitoring data affirmed that the attack was accurate.

The situation in the exercise was close to real combat. For this reason the pilots were on guard. And for good reason! From the command post came the news:

"62, you are to drop to...course 270."

"Roger," replied Berlyudnyy.

... Success comes only with vigilance, skill and the most precise calculation. All of this comes naturally to the first-class pilot. The fighters again entered the dense curtain of clouds. A maneuver and then another.

"I am watching the scan," reported Beslyudnyy.

"Your target, attack," affirmed the ground.

The duel was as instantaneous as the first. The firing, as the pilots say, was deadly. But it was precise, and the second intercept also ended with a victory.

Now home. The engineer and technical personnel quickly readied the fighters for a second sortie. And after some time the two-plane flight of Maj Bezlyudnyy was back in the air.

The interceptors encountered a very experienced "enemy." But the numerical superiority and the tactically advantageous conditions did not bring him success. Having employed the previously planned maneuvers, military pilot lat class Bezlyudnyy and his wingman took the initiative. The epposing side was forced to give up.

"How much fuel, 62?"

Bezlyudnyy gave the amount of remaining fuel.

"Go to quadrant 24--6, there is free-lance hunting for you."

"Roger."

Bezlyudnyy and the wingman following constantly behind him were ready for such a mission. Prior to the tactical flight exercise, upon the decision of the squadron commander, the major conducted an exercise where he described in detail the procedures of free-lance hunting. The leader agreed upon several versions of them with his subordinates on the night before the sortie.

"The main thing," he emphasized, "is precision of cooperation in the group, maximum circumspection in your sectors of view and a skillful combination of visual search with the scanning of space through the radar sight."

Far below a film of clouds remained. Interception and air combat without the aid of the command post were a very crucial and difficult thing. The solving of the navigation and tactical problems necessitated excellent skills. And there they were in the designated quadrant. An S-turn, a second, and a third....

"Airplanes ahead on the right," radioed the wingman to the commander.

A glance in the designated direction. In actuality, ahead of them were two fighter bombers. The first thought was to attack immediately. However Bezlyudnyy dismissed it as the "enemy" was acting too straightforwardly and openly. And he wondered: "Is this not a diversionary group?" He pressed the button of the transmitter:

"63, increase observation."

In a few seconds, everything was clear: covered by clouds, below a certain distance away followed a flight of fighter bombers. And they had to be "shot down" first. Bezlyudnyy threw the missile-carrying aircraft into a half-roll and at the same time warned his wingman:

"We are attacking the ones below."

The "enemy" spotted the interceptors and quickly reformed its battle formation for d fensive combat. But it was too late. Having completed the figure, the fighters ended up above and to the rear. A short pursuit and then accurate fire from the guns. Then a second sweeping attack from the other side. He glanced at the instruments and there was little fuel left.

"We are pulling out of combat," the commander ordered.

Guards Maj Bezlyudnyy has carried out many such flight missions. And it has happened that the skies provided difficult tests for the pilot. And he always emerged victorious from them. He has a moral rule of telling every subordinate: "Do like I do." In the daily flights, in exercises, and in advanced group aerobatics, the deputy squadron commander always endeavors to set an example worthy of following for the others.

Communist Berlyudnyy is enterprising and tenacious in achieving his goal. And the main goal of the aviators in the leading squadron is combat readiness of the highest order and the training of pilots which are capable of carrying out any mission. For the sake of this the officer spares neither energy nor time.

Difficult flights were coming to intercept airborne targets. The squadron commander, Guards Lt Col A. Bokach, consulted with his deputy. They outlined the sections of theory which must be repeated. They concluded that it would be best to conduct a tactical quiz. Preparations for this did not require much time as in the notebook of Guards Maj Bezlyudnyy there was sufficient information on the tactics of the various branches of aviation in the armies of the capitalist states comprising the aggressive NATO bloc. The officer gained the lacking material from the special literature.

The talk at the quiz was professional and concrete. Virtually all the pilots voiced their opinion on the questions raised. And they received high grades for carrying out the tactical flight exercises.

The military history of our Air Force contains many examples of the successful countering of ground targets by fighter aviation. And the present generation of pilots is preparing for this, in steadfastly working on bombing, the launching of missiles and the firing of guns. Only such flights are carried out out somewhat more rarely than interceptions, air battles and other exercises. And this inevitably leads to a loss of skills.

Guards Maj S. Berlyudnyy prepares with particular care for actions against ground targets, and goes through the necessary questions with the flight personnel in detail. And the same is required from the flight commanders. Great attention is given in the squadron to training on special equipment and in the aircraft cockpits.

The most important duty of Officer Bezlyudnyy is to ensure the growth of the professional skill of the pilots, the combat readiness of the flights and flight safety. He has flown with all the squadron pilots, he knows what they are capable of and who needs what help.

Prior to the start of the training year, the officer conducted several exercises on carrying out flights under difficult weather conditions. And not only because

the coming winter would mean bad weather and abrupt changes in the synoptic situation. Guards Haj Bezlyudnyy carefully examined the potential accident log, he systematized the mistakes (incidentally, in the first squadron there were not very many of them), and got to their essence. He concluded that he must again speak about moral-psychological training. He was supported by the squadron commander, the political worker and the chief of staff of the subunit. The exercises brought great banefit.

"Decisive struggle against shortcomings! The advanced in practice!" This is the motto of the deputy subunit commander. When the flight of the military sniper pilot Guards Maj A. Kudryavtsev excelled in a tactical flight exercise, Bezlyudnyy made certain that everyone knew of this. Another time the pilots listened with interest to the first-class specialist, Guards Maj V. Yashkin, who had won an engagement in a flight of an adjacent fighter unit. In both instances the conversation was concrete: the pilots reinforced their story with flight monitoring data.

The flights of these officers are competing between themselves. As for now Kudryavtsev's flight is in the lead. But the competitors are not complacent and are fully determined to unseat the winner.

"Incidentally, if Yashkin does not succeed in this," commented Bezlyudnyy, "still the common cause benefits from such competition."

The communist and military pilot 1st class, Guarde Maj S. Bezlyudnyy, has achieved many successes in combat training. And these are based upon systematic, assiduous and purposeful work. This work has been recognized by the Order "For Service to the Motherland in the USSR Armed Forces" Third Degree.

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SPECIAL PLANNING FOR GROUNDED FLIGHT DAYS URGED

Moscov AVIATSIYA I KOSMONAVTIKA in Russian No 12, 1980 p 6

[Article by Guards Lt Col E. Maystat, military pilot lst class: "According to a Special Plan"]

[Text] The flight personnel was ready for the flights. In the morning nothing warned of a change in the weather. However the chief of the weather service reported on a front moving in from the sea which would be capable of sharply lowering visibility at the main and alternate airfields. The commander took off to reconnoiter the weather. Soon before him there opened up a picture which fully affirmed the weather report. Multi-layered cloudiness was moving into the area of the flights and, according to preliminary estimates, in 1.5-2 hours should cover it completely. Soon a storm warning was received. Having returned, the commander of the regiment assembled the chiefs of the services and the commanders of the support units and announced that the flights were to be put off until tomorrow. The personnel began to work on exercises according to previously approved plans.

The flight control group and a portion of the personnel on the KTS [expansion unknown] trainer worked on cooperation in the different stages of a flight and in instances of unusual situations. The air medics also participated in these training sessions. Using "Fiziolog" [Physiologist] equipment, they monitored the psychophysiological state of the pilot and the flight controller in an extreme situation. An analysis of the observations made it possible to make substantial corrections in organizing various practical and theoretical exercises as well as in the indoctrination plans.

Practice clearly showed the necessity of well thought out planning of the training sessions in the event of the canceling of flights. Moreover, without fail they should have a uniform thematic and procedural basis aimed at improving the professional skill of the regimental personnel, and in no instance should be random.

It is not easy to achieve this. It is ease tial to study the personality and professional qualities of each officer, to be the level of preparation of the pilots in the program for mastering piloting and at employment techniques, and to constantly analyze the state of affairs in the subunit. Otherwise it is impossible to realistically plan for the month to come the most advisable subjects of practical exercises. At first glance, there should be no difficulty in selecting them. For example, if there are no flights then work on a trainer, in the aircraft cockpit, or according to the commander training schedule. Certainly all of this is important.

But will maximum benefit be gained from the training if it is not planned ahead of time, if the specific exercises are not outlined and their leaders prepared? We feel that the effectiveness will not be sufficiently high. Early planning makes it possible to give specific assignments to each flyer ahead of time, and this, in turn, helps to rapidly shift the personnel from one type of activity to another.

The squadron under the command of military pilot lst class, Guards Naj V. Lavrinov, was in the monitoring classroom. Here, as in the other training areas, all conditions have been created for planned exercises and for working through the theoretical and practical questions which arise in the training process. Teaching aids have been developed for deciphering the SOK [flight monitoring] data and their practical use.

Today the subject is: "Analysis of mistakes in carrying out aerobatics figures from the data of the monitoring-recording equipment [KZA] using the graphic-analytical method." This was not chosen by accident. The flight leader, military pilot 1st class, Guards Capt S. Yel'kin, had turned to the squadron commander with a request to help in decoding the KZA data. From a talk with the officer it was clear that he did not have enough knowledge to handle the SOK materials, and his skills were not sufficiently perfected. And it turned out that other flight leaders, in being ashamed to seek help from superiors, did not always correctly analyze the recordings of the flight parameters, and this told negatively on the quality of the analyses between flights.

They prepared carefully for the exercises: the corresponding graphs were filled out, films were chosen with the most characteristic deviations from the standard, as well as those where it was difficult to determine the pilot's error.

And then the flyers assembled in the classroom. The beam of the slide projector threw one image after another on the screen showing the graphs of the change in altitude, speed, the G-loads, the stabilizer angles and other parameters characterizing the flight. There was a detailed analysis of each incorrect action. The flight leaders and their subordinates learned to read the mistakes on the wavey lines of the film, to analyze their causes, and to determine the actions on a specific leg of the flight.

The set goal was achieved as the pilots gained good procedural training and honed their skills.

In another squadron which was preparing for tactical flight exercises, they analyzed the subject "the allocation of attention in carrying out a low-altitude intercept." And although this exercise had generally been worked out, there still was some roughness. The squadron commander, Guards Maj N. Lapin, having carefully analyzed the actions of the pilots and the flight leaders ".. each flight, had a full notion of the state of the air skills of his subordinates, and knew perfectly to what the attention of each should be directed. But nevertheless the first-class air fighter, the flight leader, Guards Capt V. Basayev, was appointed the leader of the exercise, and he helped him prepare carefully.

Using in sequence narration, the giving of unannounced changes and a questioning, Officer V. Basays" conducted the exercise well and disclosed the level to which the flyers had mastered the subject. However, Guards Maj Lapin in the analysis

significantly supplemented the flight leader's description, having focused the attention of the students on the use of the radio altimeter readings and the operation of the unit for signaling a dangerous altitude. Other questions were also worked on.

It must be said that the exercisus brought good results. At a recent tactical flight exercise all the pilots excellently carried out low-altitude intercepts.

The command, the staff officers and the political workers in the regiment pay constant attention to improving planning and conducting exercises during days when flights are cancelled. Thus, at a recent session of the pedagogical council, the experience was generalized in joint planning of exercises in the event of the canceling of flights. Of course, it is rather difficult to forecast precisely when flights would not be held for any reason. However, a careful study of the cyclical nature of the weather situation over several previous years made this task easier.

On the other hand, planning should be conducted from the bottom up, starting with the flights. Certainly the flight leader better than any other person knows not only the level and quality of the air skills of his subordinates, but also the prospects for mastering the flight training program. In other words, here the method of an individual approach is of primary significance. Before giving the assignments for the month, the squadron commanders, in accord with their plans, announce the inspection subjects for each flight and they will study these subjects on a day when the flights for some reason will not be held, they assign their leaders and a place for conducting the exercises. In the regiment this has become an unbreakable rule.

In the aim of increasing the pedagogical skills of the flight leaders, the pedagogical council has recommended that experience be exchanged regularly with them under the leadership of the squadron commander or his deputy, and for the best educators in the regiment, demonstration exercises on the most important and responsible subjects.

Here an example could be the colloquium on readying an aircraft for a second sortie as conducted by Guards Engr-Lt Col A. Gul'tyayev with the pilots on non-flying days. And when once during a tactical flight exercise, one of the groups had to land at the alternate airfield, the guardsmen, the lst-class pilots, the deputy squadron commander for political affairs Maj S. Movchan, Capts A. Mamatov and A. Makhnutin, excellently readied the aircraft for a second sortie. The specialists and umpires, upon arrival, having checked the work of the pilots, did not find a single mistake.

It can boldly be said that the well thought out and skillfully used days of canceled flights are one of the reserves which must be efficiently used for broadening a knowledge of the equipment, aerodynamics and tactics.

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NEED FOR FLEXIBLE TACTICAL THINKING IN AIR COMBAT VIEWED

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 12, 1980 pp 8-9

[Article by Haj G. Drugoveyko, military pilot lst class: "The Leader Takes a Decision"]

[Text] The group of fighters was on the search. The aircraft broke through the clouds and then disappeared back into their cold denseness. The screen of the on-board radar glowed dully. There were no blips on it. As yet none of the pilots in the group had detected the "enemy."

"According to all calculations the enemy should be here," thought the flight leader, Sr Lt I. Shakel'. "But also the 'enemy' is searching for us. Attention, more attention." And suddenly in the headset he heard:

"Target in sight, attacking!"

The familiar, customary words said, however, not by him, by Shakel', but rather by the commander of the opposite group, were wounding to him, and at the same time forced him to instantly collect his thoughts, mobilize his will and determination to engage the unknown rival in battle. Shakel' saw in the periscope the flashing silhouettes of aircraft. The "enemy" leader was maneuvering decisively....

Possibly someone else would have accepted the inevitability of defeat. But Sr Lt Shakel' is not this sort. The first-class military pilot always employs every opportunity to emerge from any situation with honor and victory.

The advantage of the attackers seemed irrefutable. Possibly, their leader was mentally counting off the last instants until the salvo. Shakel' took a decision and immediately began to carry it out. Upon his command, the flight instantly carried out a maneuver which prevented the accurate firing by the attackers.

However the engagement did not end with this. The "enemy" began pursuit, counting on the speed and maneuvering capabilities of its equipment. Shakel' quickly guessed this plan. "They are being cautious," he thought. "Then we will do this...."

A brief command and all the pilots in his group rapidly reduced speed. In a few seconds the aircraft had gained the necessary surplus speed. Then Shakel' led the flight into an energetic combat turn. Now the rivals were under equal conditions. But the "enemy" was perplexed as a close victory had clearly slipped from its

fingers. It still endeavored to pursue, but this merely exacerbated its situation as it lost speed and was forced to reduce the steepness of the trajectory... Now the initiative had moved to Shakel's flight. Combat continued. They did not know what the other side would do. All the will of the air fighters was concentrated on one thing, achieving victory. Again an energetic maneuver and the rival was in the sight. The commander was the first to attack, followed by the wingmen.

As the photographs showed later, all the "enemy" aircraft had been hit with accurate fire.

Or another example. Capt Yu. Simonenko and Sr Lt Yu. Petukhov were covering the battle formations of advanced motorized rifle troops. The "enemy" over the area of combat operations actively employed radio electronic countermeasures, making it more difficult for the flyers to carry out the mission. Suddenly the leader of the two-plane element Capt Simonenko, on the radar screen detected a group of fighters which were not covered by interference. All indications were that the "enemy" did not see him. The position for the attack was the most advantageous, and the pilot, without thinking, led the element into the attack. He closed in. But..."is this not a trap!" was the thought that flashed through the mind of the leader. "The 'enemy' is acting in a directly provocative manner."

There were no more doubts. This was a feint. Hence, the main attack forces would be over the battlefield. But when? "The most probable thing," decided Simonenko, "is that they will arrive in the time interval equal to the time of the maneuver and attack of the decoy group."

And this was the case. At a low altitude, concealed by the terrain, the "enemy" attack group was moving in....

Simonenko and Petukhov engaged it in combat until the arrival of the support fighters. The plan of the opposing side was thwarted.

These examples of skillful actions by the crews have been taken from the life of our squadron. They clearly demonstrate how crucial is the moment of decision taking in air combat.

The exchange of experience on the conducting of air combat is very popular among the pilots. The aviators analyze in detail the employed tactical procedures, they examine them from the psychological viewpoint, and elucidate the factors which contribute to or reduce a correct assessment of the situation and the taking of a decision.

One tactical flight exercise comes to mind in which Capt N. Dmitriyev participated among other pilots. Having detected the "enemy" at a maximum range and in skill-fully using his aircraft equipment, he was able to close in unnoticed. Thus, even before the start of the engagement, a tactical advantage had been won. In order that the strike be effective and devastating, the leader decided to attack in a two-plane element. However, instead of the command "we are attacking from the left" over the airwaves came "we are attacking from the right." In truth, the commander immediately corrected himself, but precious seconds were lost. And the "enemy" had already detected the attackers and had begun a defensive maneuver. The surprise attack was lost. Dmitriyev's wingman was in a difficult position. And

only great piloting skills and flavless mastery of the combat equipment made it possible for the pilots to avoid defeat. And victory had been close.

This engagement was analyzed in detail at an exercise and brought up for discussion by the pilots. Moreover, the mistake had been made by one of the experienced air fighters who had repeatedly won in air duels. And it could be explained by purely psychological factors. The officer had allowed himself to give way to his emotions, he was not sufficiently collected and attentive, and for this reason made a slip of the tongue. And although this was the only occasion in the flight practice of Capt Dmitriyev, nevertheless it was an instructive one.

An active exchange of experience must provide exhaustive answers to the arising questions, it must arouse creative thought in working out and utilizing tactical procedures in various combinations, and it must exclude routine from combat training.

In the same exercise, the question arose: What is more important to consider in taking a decision to maneuver or attack—the shortage of time or the desire to obtain more complete information on the enemy?

The opinions differed. For example, the flight leader Sr Lt A. Blinov felt that the shortage of time must be taken into account. Be based his viewpoint on the fact that the shortage of time always shows a tendency to become more acute, and the ambiguity of the situation in which the taken decision must be implemented is far from always reduced in proportion to the time of the situation's development. The officer referred to the example of the wingman Simonenko. Initially the pilot was tricked by the "enemy," but having guessed its plan in time, altered the initial decision. And he had virtually no information on his opponent. If Simonenko had spent even a few seconds on clarifying the situation the "enemy" would have been able to carry out its plan.

Of course, each air engagement is unique and it is difficult to give any formula for all events, however for such situations Blinov's conclusion, I feel, can be considered closest to the truth.

Maj V. Suchkov is always up on the affairs of his subordinates and for this reason literally in each tactical exercise gives sharp questions which are of interest to all. Once the squadron commander overheard a dispute which arose between the pilots. Some felt that there was no reason to try to master too many tactical procedures, arguing that in being overconcerned with the quantitative aspect one might overlook the qualitative one and dissipate one's attention in choosing the variation for conducting combat. Others felt that this was not the case as the mastery of a large number of tactical procedures combined with high piloting skills greatly increases the chances of victory.

Maj Suchkov brought up this interesting question for discussion by the aviators. Military pilot 2d class, Sr Lt E. Delpers, supported the second viewpoint, noting here the necessity of an ability to respond quickly to a change in the situation and to instantly incorporate in one's tactical arsenal the most effective procedure in the given situation. Capt I. Khizhnyak agreed with him, emphasizing that each combat group must not only keep as many possible tactical procedures in reserve, but also learn to master them perfectly in order not to experience an excessive psychological strain.

"Precisely this plus tactical boldness and the teamwork of the two-plane element," he added, "helped the group of Sr Lt Shakel' win the engagement in a rather difficult situation.

Incidentally, mutual understanding between the leader and the wingman, and between the two-plane elements in the groups is one of the important indicators for the air skills of the flyers. For this reason in analyzing the engagements, the commander always points out the role of the wingman in the final result. Scarcely any of the leaders would agree to have as a wingman a pilot capable only of passively carrying out the will of someone else. The wingman is an air fighter, and he must be ready for independent actions. And in any event, each leader should prepare his teammate for this. The experience of combat training affirms this necessity. Of course, the duties of the wingman in the element are rigidly concretized. First of all he is the shield of the leader. But the situation in the flight can develop differently. Sr Lt V. Novogurskiy spoke about this. Once he had to change roles with the leader. The target was spotted in a position that it was impossible to attack it without changing the echelon. Then Novogurskiy received the leader's order to attack. And he carried out the mission excellently, having hit the target on the first attack and with the first salvo.

Maj V. Suchkov summed up the exercise. He drew two conclusions.

In the first place, even during high-speed air clashes of supersonic fighters, combat can be extended with rapid shifts from one maneuver to another under conditions of extended exposure to high G-loads. For this reason a pilot should not count on an easy and quick victory, even when in the most advantageous position, but without fail must be ready for maximum and extended physical and mental stresses.

Secondly, it is essential to constantly develop in oneself the ability to critically assess the taken decision even in the process of implementing it, and systematically provide for the development and change in the situation. Tenacity does not exclude, but on the contrary, presupposes a flexibility of tactical thinking.

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GREATER NEED FOR EXACTINGNESS IN AIR FORCE PARTY PERSONNEL

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 12, 1980 p 10

[Article by Col V. Golovachev: "From a Position of Exactingness"]

[Text] The determining feature in the work of the political bodies and party organizations is high communist ideological loyalty. "Communist ideological loyalty," as was pointed at the 25th CPSU Congress, "is a fusion of knowledge, conviction and practical action." Organically linked to ideological loyalty is exactingness and principledness. A principled policy, V. I. Lenin taught, is also the most practical policy. To have a Leninist attitude toward a question means to put the interests of the state, the party and the people above all else, to be guided by principled considerations in major and minor matters, is settle all questions from class positions, and to dedicate all one's forces and knowledge to the cause one is serving.

The recently held reports and elections demonstrated that a professional situation has been created in the party organizations of our unit, while concern for increasing the vanguard role and activeness of the communists, reciprocal exactingness and principledness in assessing the principle contribution of each party member to the common cause have become characteristic.

Practice has shown that exactingness brings good results when it is timely and systematic and when it is based on a profound understanding of the state of affairs and the specific situation. There are many examples of this.

In the collective where Officer A. Gorgan serves, the missions of flight training were generally being carried out successfully. The plan for the total flying time and basic types of flight training was being carried out with an evaluation of "good." However, a more detailed analysis indicated that for certain types of combat training the plan could be carried out better and with fewer expenditures of forces. And the reason was discovered: imprecise planning for the week, day and flight shift. The command of the unit dealt strictly with the subunit commanders about this.

The question of planning was examined in detail at a service meeting and a party meeting, and specific measures were outlined to eliminate the shortcomings. Now the planning tables have begun to more precisely define the missions of the flight shifts.

This example is instructive. It provides a notion of the principled and demanding position of the communists and the militancy of the entire party organization.

The Decree of the CPSU Central Committee "On the Socialist Competition to Properly Celebrate the 26th CPSU Congress" has caused a great upsurge in creative forces and energy among the communists. Many collectives, in successfully carrying out the combat training missions, have assumed increased obligations for the concluding stage of the training year.

here is how the party organization of the squadron under the command of Officer A. Boyko has organized its work. The communists promise to raise flight safety to a higher level. The squadron commander, a member of the unit party committee, and the secretary of the subunit party organization Officer V. Gorbunov thought through the work plan in detail, and involved the activists in carrying it out. The communists discussed the question of raising flight safety at a session of the party bureau and at meetings of the party organizations. Giving reports were the flight leader, Capt Yu. Trubinin, the chief of the aircraft weapons maintenance group, Sr Lt Tech Serv I. Vel'mozhko, and other communists. Also generalized and disseminated was the experience of the chief of the TECh [maintenance unit] of the outstanding flight, Sr Lt Tech Serv V. Savos'kin. It has become a practice to hold analyses of shortcomings and mistakes made during the preparations for and carrying out of the flights. These are attended both by the flight and technical personnel. Precise organizational and indoctrinational work has produced positive results. Flight safety in the squadron has increased significantly, the young pilots are successfully mastering the required modern program, and each flight assignment is carried out with good and excellent evaluations.

The Decree of the CPSU Central Committee "On Further Improving Ideological and Political Indoctrination Work" requires that the communists in every possible way develop principledness and decisively condemns the tendency to smooth over unsolved problems and remain silent about shortcomings and difficulties. In those collectives where the party organizations are not sufficiently demanding on the communists, and where there is no principled assessment of the state of affairs, errors appear. As an example, one might give the squadron under the command of Officer V. Poshibaylov. Here instances of the violation of military discipline did not particularly alarm the commander and the party activists. They did not show proper principledness in disclosing the reasons causing this. The unit party committee helped the party organization of the squadron to analyze its work and to take strict measures against the guilty parties.

At the report-election meeting it was pointed out that at present there has been a noticeable improvement in political indoctrination with all categories of servicemen, more diverse forms and methods are being employed, and the demands made upon the CPSU members have significantly increased. After valid criticism at a session of the party bureau, correct conclusions were drawn by the deputy squadron commander for IAS [air engineer service], Maj V. Kharitonov. He began to pay more attention to the solidarity of the collective and to indoctrinating subordinates.

Party exactingness presupposes high demands on the awareness, professional training, life and activities of the CPSU members, and above all on the communist leaders. Their work has been viewed precisely from these positions. As a rule, these are people with a highly developed feeling of responsibility, and they are

constantly concerned for the professional training of themselves and their subordinates. Lt Col V. Rovnyagin, Majs Yu. Andreyev and V. Golubev, and others have proven to be able organizers and indoctrinators. The activities of these commanders are reflected in the deeds of the collectives led by them and they are successfully carrying out the socialist obligations, and are woving toward the 26th CPSU Congress with good indicators in combat training.

In speaking at a meeting at the Central Committee of the Kazakh Communist Party, Comrade L. I. Brezhnev noted that "in all areas of our work, there should be high organization, efficiency and discipline in all regards." This applies fully to our collective. Party exactingness and principledness, constant control over execution, criticism and self-criticism—these component traits of a Leninist style of work help the communists in promptly eliminating shortcomings and conscientiously carrying out their party and service duties.

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HEASURES TO INCREASE ROLE OF PARTY GROUP IN AIR UNIT REVIEWED

HOSCOW AVIATSIYA I KOSMONAVTIKA in Russian No 12, 1980 p 11

[Article by Lt Col Yu. Girich, military sniper pilot: "Stages in the Development of Air Fighters"]

[Text] As is known, ideological work is a powerful means in the struggle for the high combat readiness of the units and subunits. How can its effectiveness and quality be raised? How can the political indoctrination measures be made more effective? These questions are constantly at the center of attention for the command, the political section and all the communists of our unit. The Decree of the CPSU Central Committee "On Further Improving Ideological and Political Indoctrination Work" emphasizes that the main way to raise its ideological level and effectiveness as indicated by the 25th Party Congress is a comprehensive approach to organizing the entire question of indoctrination.

This idea was reflected in the recommendations of the all-Union conference of ideological workers as well as the meeting of the command and political leadership of
the Army and Navy where it was emphasized: "The essence of the view of the party
Central Committee on indoctrination in the Army and Navy is that the powerful formative factors which the Armed Forces possess be used in the best manner for the full
ideological, moral and physical tempering of the builders of communism, and for instilling in the young people feelings of high responsibility for the historic destiny of socialism and for the security of the fatherland."

On the basis of these demands, our political section has worked out a comprehensive long-range plan for ideological indoctrination considering the nature of the tasks to be carried out by the subunits. It includes the basic areas of ideological indoctrination, political training, mass agitation and cultural-educational activities. The component parts of it are: the programs for the Marxist-Leninist training of the officers, political training for the warrant officers ["praporshchik"], political exercises for the soldiers and sergeants, plans for raising the ideological, theoretical and pedagogical training of the political study group leaders, work with the agitation and propaganda activists, and the basic measures of the cultural-educational institutions and agitation-propaganda collective.

The political section and the party organizations are constantly concerned that the aviators profoundly master the principles of Marxism-Leninism and be able to employ the obtained knowledge in practice. There are regular supplementary lectures and talks, special-subject evening meetings, theoretical and reader conferences, and verbal journals.

The questions of the ideological conditioning of the personnel are at the center of attention of the party and Komsomol organizations of the subunits. For example, in the troop collectives where Majs V. Belikov and A. Ivolgin and Capt V. Talankin serve, they extensively use reports by the communists and Komsomol members on how they are studying the works of V. I. Lenin, the founders of Harxism-Leninism, the decisions of the 25th CPSU Congress, the decrees of the CPSU Central Committee, and the speeches of the General Secretary of the CPSU Central Committee, Comrade L. I. Breshnev, and the other party and government leaders. The students of the political study groups are aided by Lenin readings. The members of the agitation and propaganda collective give lectures on individual works of the great leader. For example, the lecture on "The Importance of the Work of V. I. Lenin 'Marxism and Revisionism' in the Struggle Against Hodern Opportunism" which was given by the member of the agitation and propaganda collective, Maj L. Lopatyuk, was listened to with great interest.

In following the recommendations of the conference of the command and political leadership of the Army and Navy, we are paying particular attention to improving the level of the ideological, military and pedagogical training of the indoctrinators themselves. For example, in the air squadrons, where Maj N. Shchetinin and Capt A. Kukharenko are the leaders of the Marxist-Leninist study groups, at the seminars the students give abstracts on Lenin's works. This significantly increases the content of political studies and the effectiveness of ideological work as a whole.

The officers and warrant officers conduct extensive agitation and propaganda. The political section and the party organizations are constantly concerned that the propagandists are able to delve deeply into the essence of social phenomena, and analyze specific events and facts. Experienced educators help them in studying theoretical materials and in acquiring pedagogical skill. At seminars and meetings, they regularly review the questions of practical ideological-indoctrination and organizational work in the military collectives. A study of the works of Comrade L. I. Brezhnev has been of great help in theoretical development and in the ability to apply the obtained knowledge in practice. The officers gained much that was valuable at theoretical conferences on the following subjects: "The importance of the book of Comrade L. I. Brezhnev 'Malaya Zemlya' [Little Earth] for the activities of commanders, political workers in the ideological and political indoctrination of the men" and "urgent tasks in party ideological work at the present stage of communist construction."

The participation of pilots has been significantly broadened in the ideological indoctrination of the warrant officers and soldiers and sergeants in regular service. In the subunit where Officer M. Gerzhanovskiy service, the political exercise groups for the soldiers and sergeants are conducted by officer pilots. Young communist officers have also been assigned as agitators in the flights. The good ideological and theoretical preparation received at school and a high sense of responsibility help them in successfully carrying out this important party assignment. The leaders of the political exercise groups, in taking up the theoretical questions, closely link them to the tasks confronting the unit or subunit, and indoctrinate the aviators in the glorious Air Force traditions. The pilots, Sr Lts V. Budantsev and V. Khoroshilov, have great authority among the students. In the final exams their groups always receive high grades.

The activists among the engineer and technical personnel are also doing a great deal. At meetings in the political section, their participation in ideological indoctrination is regularly analyzed. It must be pointed out that in the subunits there has been a significant rise in the activeness of the engineers and technicians in propagandizing military technical knowledge. In the military collectives where Officers A. Fedorov and P. Veselov serve, technical circles are operating successfully, and experienced specialists from the IAS [aviation engineer service] regularly give reports to the personnel on the particular features of operating and servicing the aircraft.

Experience shows that insufficient attention to ideological indoctrination tells on the results of combat training and the state of military discipline. Precisely this circumstance was the reason why the subordinates of Officers V. Klochko and V. Poleshchuk at times worked below their abilities. The command and the political section dealt severely with them for flows in the indoctrination of the men and gave them the necessary help.

In the past training year, we somewhat reduced the number of members in the agitation and propaganda collective for the purpose of improving the qualitative composition and for a more effective organization of the work. This measure was fully effective, since each propagandist has begun to show greater responsibility for the assigned question.

These are the basic areas in the activities of the command, the political section and the party and Komsomol organizations of the unit to further increase the effectiveness of ideological work. Its results are having a great impact upon carrying out the tasks confronting the collective. Last year, the aviators successfully carried out the military and political training plan, they made significant headway in studying and mastering the complicated equipment, and merited the high award of the Lenin Diploma.

All that has been done up to now represents just the initial stage in solving a problem of enormous political importance. And from such positions we are approaching the assessment of our activities, in constantly remembering the legacy of V. I. Lenin: "...To constantly move farther and to continuously achieve more." The commanders, the political workers and the party and Komsonol organizations of the unit consider as their task a further improvement in ideological work, a rise in its effectiveness and the further use of the indoctrinational role of the socialist competition to properly celebrate the 26th CPSU Congress.

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POLITICAL ACTIVITIES IN HELICOPTER UNIT DESCRIBED

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 12, 1980 p 16

[Article by Lt Col V. Batsura, military navigator 1st class, and Maj V. Tikhonov: "For Combat, For Victory"]

[Text] Only victory is essential in combat. All the training of military aviators is subordinate to this. "It is essential to achieve a situation," pointed out the member of the Politburo of the CPSU Central Committee and USSR Minister of Defense, Mar SU D. F. Ustinov, "that, in organizing the training and indoctrination of the personnel, each commander and political worker perfectly understands the new moral, physical and psychological trials which our soldier will encounter in real combat... as well as the safety factor—military, ideological and moral—which is essential even in peacetime in training defenders of the motherland."

During the summer training period, the personnel of our unit was tested under difficult conditions close to actual combat. During the preparations for the exercises and during them, the command and the political section carried out great work aimed at indoctrinating high moral-military and psychological qualities in the men, and at improving flight and technical mastery. In the subunits party meetings and conferences for activists were held, and in the unit a scientific-practical conference on the book by Comrade L. I. Brezhnev "Malaya Zemlya" (Little Earth) at which recommendations were worked out on conducting party political work. Each military collective assumed specific socialist obligations.

And then the exercises began. The first to take off were the communists, the deputy helicopter squadron commander for political affairs Maj V. Kopchikov, and the flight leaders Capts A. Ustimenko and L. Tuktarev. These officers are masters of their job and can carry out any mission.

The first sorties were carefully analyzed. With their comrades the pilots shared experience in conducting air reconnaissance, they gave advice on how to determine ground targets more accurately, and drew their attention to the efficiency of transmitting reconnaissance data to the command post. The improved reconnaissance procedures began to be employed not only in this squadron but also in other ones.

When the crews began to work on combat employment and cooperation in combat, the exchange of experience also made it possible to elaborate methods for the more efficient use of the helicopter weapons and tactical innovations. Thus, particular attention was given to the cooperation of the crews in the event of working on an

unannounced change for a forced landing in immediate proximity to the "enemy" positions. In such a situation the aviators acted boldly, carefully and decisively. The tactical procedures employed by the pilots in these difficult conditions were thoroughly studied by all the personnel of the unit.

A major responsibility for disseminating advanced experience must be given to the commanders, the political workers and the party and Komsomol activists. Each day they analyzed the course of carrying out the combat training missions, the socialist obligations and their own activities. Considering the forthcoming sorties, they planned party political work. Each political worker and non-T/O propagandists, agitator and editor of a combat leaflet received an individual assignment. Here particular attention was given to making certain that no flight, crew or aviator remained without constant party influence.

The unit's political section studied and disseminated the experience of the best fighters on the ideological front, and the activists regularly reported on their work. Valuable proposals which arose in the course of things were discussed and quickly introduced into practice. The main objects of attention were the squadrons, the TECh [maintenance unit], the flight and crew, that is, those units which directly were solving the questions of preparing and carrying out the combat training missions and dueled with the "enemy." Relying on the experience of conducting party political work during the years of the Great Patriotic War, the activists prepared each measure carefully and carried it out effectively.

Attention should also be given to the activities of the party organization secretary, Capt Yu. Lebedev, and the Komsomol leader, Sr Lt N. Popov. They were constantly among the personnel, they studied the mood of the men, they conducted individual talks, and organized the exchange of advanced experience. Upon the initiative of the activists, the squadron began to publish political information leaflets with a brief review of recent events in our country and abroad. During the flights collective readings of newspapers and the listening to radio broadcasts were widely used.

The party organization of the subunit was able to have the communists set a high example. They set the tone during the carrying out of the flight missions and in preparing the equipment. Having assumed high socialist obligations, the communists reinforced their word with specific deeds. The communist leaders and the leading pilots in the subunits above all set an example in carrying out service and party duties:

The Komsomol members also did shock work. During the exercise the best of them submitted applications for candidate membership in the CPSU.

The personnel of this squadron was awarded a Lenin Diploma for the exemplary execution of flight missions and for successes in military and political training.

During the exercises, the political section gave great importance to visual agitation. The activists endeavored to inform each aviator of the course of the socialist competition and propagandized the achievements of the leaders. In the quarters where the personnel assembled, they hung up combat leaflets, express leaflets and photographic bulletins telling about the leaders in the socialist competition, the pilots, engineers, technicians and junior aviation specialists. For example, not

only the subunit but also the entire unit was informed of the successes of the deputy squadron commander for the IAS [aviation engineer service], Engr-Maj A. Svirkovskiy, the chief of the weapons group Sr Lt Tech Serv R. Sibgatullin, and the flight technician, Sr Lt Tech Serv P. Tkach, who significantly reduced the time for readying the helicopters for a second take-off. A combat leaflet described this. The activists urged everyone to equal these communists and to learn self-sacrifice, initiative and a creative attitude toward the job from them.

Also widespread was such a form of indoctrination as moral incentives. In the garrison they hung up wall and photographic newspapers which contained portraits of the most outstanding aviators and information about their successes. In turn, the women's council sent to the unit which was away from the garrison send-off letters and appeals to the officers, warrant officers ["praporshchik"], sergeants and soldiers. These were read before the formations and during personnel meetings. They mobilized the aviators to carry out the given mission excellently.

In carrying out the demands of the Decree of the CPSU Central Committee "On Further Improving Ideological and Political Indoctrination Work," we have endeavored to conduct it continuously, concretely, purposefully, and considering the increased demands upon the quality of military and political training. The command, the political section and the party organizations in every possible way have developed a feeling of high personal responsibility among the communists for the assigned job, and have instilled an intolerance for weaknesses and oversimplification.

The exercises were concluded successfully. The acquired experience shows that the more complicated and intense the situation is in the course of the exercises, the more profoundly and actively party political work should be carried out, and the stronger its influence should be on successfully carrying out the given missions and fulfilling the precongress socialist obligations.

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TRAINING PROCEDURES FOR AIRPIELD FLIGHT SUPPORT CREWS VIEWED

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 12, 1980 p 21

[Article by Maj V. Sorokletov: "When the Situation Changed"]

[Text] On the day of preliminary preparations, the men of the light and radar flight support subunit carried out preventive repairs on the equipment and trained in detecting and eliminating failures. Only the duty shift headed by Sr Lt V. Sologub was at its posts and was ready at any minute to go to work. At certain intervals of time, the specialists checked the functioning of the instruments.

Suddenly from the command post came the command to support the guidance and landing of an Aeroflot aircraft. And immediately the power source, the instruments and signal devices were turned on, and the equipment began to generate information on the air situation. It was immediately transmitted to the aircraft. The crew of the radar landing system precisely brought the aircraft to the airfield. The aviators warmly thanked the specialists headed by Officers A. Pedorenko, A. Boltnev and A. Kulik.

The men of these crews and shifts receive only good and excellent evaluations for flight support. More than one-half of the personnel is high-class specialists. Many have mastered related specialties. The aviators are successfully carrying out the socialist obligations assumed in honor of the 26th CPSU Congress.

The installations where our men serve are located not only close to airfields but also a significant distance away. This complicates the work of the commanders in indoctrinating and training subordinates. It is not always possible to assemble the personnel for exercises, and it is more difficult to control their work.

Considering these particular features, the party organization of the unit has provided effective help to the commander in clearly organizing the training process and has endeavored that each communist set a personal example in military service, fully employ every opportunity to improve his professional skill and by glorious deeds welcome the 26th CPSU Congress. The activists clearly describe the experience of the leaders in the precongress competition. A screen of the socialist competition has been set up in the subunit. It shows the personal obligations of the men.

The communists have shown great concern for the skills of the specialists. Capt A. Kulik, Sr Lts A. Boltnev and V. Sologub, and other of our best pedagogical officers endeavor not to waste a single minute of training time. Along with theoretical

exercises, they conduct training on the regulation and special equipment. Integrated training sessions play a major role in improving the technical skills of the personnel. The men develop the habits of carrying out the most complicated maintenance jobs on the radar equipment. Competition between the crews and shifts is widely used. Pennants have been established for the winners. Other forms of moral incentive are also used.

In our regions, during transitional periods of the year, for example in the autumnwinter one, there are frequent abrupt fluctuations in temperature, dust and snowstorms, and gusty winds which complicate the operating of equipment. For this reason the officers regularly inspect the condition of antenna devices, motor vehicle and other equipment, supplies and spare parts and the procedure for using tools.

Experienced specialists during an instruction session, prior to letting the subordinates go on duty, describe how to prevent a malfunctioning of the equipment, they remind them of safety measures, and conduct a training session using a simulator.

In a period of duty, and particularly in the course of tactical flight exercises, the specialists are under great physical and emotional stresses, and often work under conditions of a sharp time limit. What can be done so that the personnel maintains high work efficiency? This question is also at the center of attention of our communists. Capt A. Kulik who heads the work of the technical circle, and Maj A. Fedorenko (the leader of the technical lecture series for officers and warrant officers ["praporshchik"]) ably use the recommendations of pedagogics and psychology. Often they organize an exchange of experience. For example, a high-class specialist told the operators how to correctly allocate attention during the tracking of aircraft. Sets of special physical exercises have been worked out and introduced in practice. Sports gear and supplies are found both at the outer and middle marker locators and at other installations. The officers regularly check how the warrant officers and sergeants conduct physical training exercises.

... The first sun rays had scarcely gilded the peaks of the mountain spurs flanking the airfield but the field reverberated with the roar of jet turbines. But long before two green rockets burst in the sky announcing the start of flights, the specialists of our subunit had taken their positions. They were well prepared for supporting the next flight shift.

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TACTICS OF AIR RAIDS AGAINST AIRFIELDS REVIEWED

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 12, 1980 pp 26-27

[Article by Col Ye. Tomilin: "What Should Be Taken from Combat Experience?" End of article. For beginning see No 11 of this journal]

[Text] In tactics, nighttime strikes against airfields have held a special place. These have been viewed as a continuation of daytime raids and were carried out for the purpose of maintaining a continuous effect on the enemy or to prepare for forthcoming daytime raids. However, in those instances when the enemy's resistance during the day could not be successfully crossed by aviation, nighttime raids assumed greater scope and sometimes were the only possible ones.

Nighttime operations against airfields had a number of characteristic features.

First of all the darkness reduced the effectiveness of antiaircraft fire which was guided to the target visually, and particularly the countereffect of enemy fighters. This created favorable conditions for employing obsolete types of aircraft along with modern ones as the operation of the old ones was almost impossible during the day.

The night required a combination of the methods of visual and instrument navigation and bombing. It was also essential to consider such factors as moonlight, the nature of the visibility of the objective during different hours of the night, the presence of linear markers (rivers, highways and railroads with transport moving over them or having natural illumination, and so forth). And finally, an experienced, well-trained flight personnel could fly successfully at night and use the weapons.

These features determine the choice of the procedures and methods for conducting combat operations. From the experience of the war, the basic procedure became a raid consisting of separate two-plane elements or individual aircraft approaching the target at different altitudes and close intervals. The crews made three-five passes from different directions and remained 10-15 minutes over the target. The plan was to have three-four aircraft simultaneously at different points in the zone which could be fired on from the ground, and this would disperse the antiaircraft fire. However, strong air defense necessitated an increase in the flight altitude.

Particularly important significance was assumed by additional target reconnaissance conducted at dusk or with the onset of night. This affirmed the presence of enemy

aircraft at the airfield and specified their parking areas. Moreover, characteristic details were given helping to locate the target and bomb by the attack group. Sometimes the additional reconnaissance was carried out directly prior to the attack and was combined with the designating of the target. For deceiving the enemy and achieving surprise, the pass over the airfield was made from the rear with muffled engines. The crews illuminated the terrain with SAB [flare bombs], and determined the location of the bombing objectives and the characteristic markers which would facilitate their execution. Then, using avoidance maneuvers, bombing was carried out. The crews of the attack group got their bearings from the explosions of the bombs.

Under conditions of heavy antiaircraft countermeasures and searchlight illumination, the flight was made by a two-bomber element with one ahead at an interval of 1-2 minutes with the mission of illuminating the target and neutralizing the antiaircraft weapons and searchlights. The second crew bombed the target.

During the war, night raids aimed at sealing off the airfields and grinding down the personnel played an essential role. For example, for thwarting enemy air operations, during the night of 6 February 1944, one of the bomber regiments sealed off the airfields of Sarabuz and Bagerovo.

Additional reconnaissance of the Sarabuz airfield was carried out by a special aircraft the crew of which illuminated the airfield and detected up to 30 twin-engine bombers on its southeast edge. Having made several passes, the reconnaissance plane dropped bombs and, having called forth air defense fire, established the presence of 8 small-caliber antiaircraft artillery emplacements which operated in tandem with 7 searchlights. From the reconnaissance data, the regimental commander took his decision and compiled a plan for sealing off the airfield with two-plane elements with reciprocal target illumination. The passes at the target were made from different directions. As a result of the bombing, there were nine fires and one major explosion at the airfield.

At the same time the Bagerovo airfield was sealed off. During this night enemy aviation was unable to operate. From the experience of the raids, it was considered advisable for the first crews from the reconnaissance groups to set fires in the area of the target (choose fuel tanks for the objectives of the strikes). This significantly facilitated the approach of the following groups to the objective of the strike and pinpoint bombing.

Also noteworthy is the method of using illuminants as a diversionary group. One or two bomber crews with SAB approached the airfield at a great height and flew along its edge, attracting antiaircraft fire. The strike group, in using the corridors in the wall of antiaircraft fire, attacked the designated targets without impediment. Here they strictly followed the principle of spreading out in terms of altitude and direction of passes.

The night made increased demands upon the skill of the personnel and the organization of the raids, however the tactical benefit was obvious. Fewer forces were needed for carrying out the mission and there was no need for a fighter cover for the bombers.

Reliable defense against enemy fighter attacks was achieved by a battle formation of the bombers whereby the firing zones overlapped and a screen was organized on the most dangerous sector. Thus the bombers protected themselves. But how did the ground-attack aircraft do this? Here is an example from the book by Hero of the Soviet Union, Maj Gen Avn N. Platonov "Eskadril'ya Geroyev" [A Squadron of Heroes].

"The mission was accomplished and one could return to the home airfield. The battle formation of the group had to be reformed, but it was risky doing this as enemy fighters hung over the squadron. The pilots, using the experience of similar engagements, left the target without changing the former 'circle' but merely extended it into a 'ellipse.' In order to more quickly break away from the fighters, the leader radioed: 'Shift to low altitude!...' Now the Nazi AA gunners were not dangerous and the ground attack planes had left the zone of their fire and they could begin to defend themselves more actively against the fighters. By heavy fire, the air gunners and pilots shot down one Messerschmitt. The remaining ones began to attack with caution. Then came the command to reform in a column. All the pilots quickly and precisely executed the maneuver. Soon the Ils were flying in a column of two groups of six and at tree-top level, using the forests and ravines for camouflage, and they easily broke away from the fighters."

The well-known expression is valid: There are neither good nor bad battle formations, but only those which correspond or do not correspond to the conditions for carrying out the mission. In order to constantly follow the principles of flexibility, invulnerability and mutual support, the battle formation was reformed during the stages of the flight.

The Directive of the Commander of the Red Army Air Force of 29 June 1943 stated: "There should be no routine in organizing raids on airfields. Each raid should be carefully though out, organized and supported in all regards. The basis of success is the carrying out of two missions: suppressing antiaircraft defense and defeating the enemy fighters."

In the 1950's through the 1970's, no local conflict involving modern (for that period) combat aircraft and air defense weapons was carried out without air strikes against enemy airfields. For example, such strikes had a decisive impact on the outcome of the Six-Day War of 1967 in the Near East. The experience of local wars again affirmed that the traits of the past are constantly repeated on a new basis, with the sharply increased capabilities of the weapons. The new factors which had to be considered in the elaboration of tactics were: the increased fire power of the aircraft, the equipping of them with sight and navigation systems and electronic countermeasure equipment; the covering of the airfields by surface-to-air missile complexes ('n cooperation with antiaircraft artillery); the building of reinforced concrete relters at the airfields for the aircraft; the presence of a tactical air defense zone equipped with organic antiaircraft weapons which had to be crossed by the aircraft on the way to attacking the objective (the airfield).

Many old elements of tactics have proven their right to use under changed conditions. Surprise has continued to play a crucial role in raids on airfields. This was achieved by previously known procedures, such as: by selecting a good time for the strike, by the concealed approach of the aircraft, and by going into the attack from directions which the enemy considered the least dangerous. There was no reason to abandon the tested principle in working out the plan for the strike. If the

plan was to make the strike with surprise and a single pass, then groups were not assigned for neutralizing the air defenses. If repeated attacks were to be made (the time remaining over the objective was increased), then prior to the appearance of the basic group, the airfield air defense weapons were to be attacked by aircraft having special weapons.

There has also been further development of enticement procedures with significant resources being spent on this. The aim here was as before: to catch the enemy aircraft on the airfield outside of shelters and to attack them after landing or during taxiing.

Particular attention was given to knocking out the operating area of the airfield, the concreted landing strip (for a certain time). Concrete-piercing bombs were used for sealing off the airfield, and the craters from them prevented the taking off and landing of aircraft. This methods was most widely used at the end of the air war in Vietnam and in the 1973 October War in the Near East.

The method of destroying aircraft on the airfield has been practiced evermore rarely, its assessment has declined more and more when the "cost--effectiveness" criterion is employed. The probability of catching enemy aircraft exposed to attack has become slight, while on the way to the airfield strong air defense barriers had to be crossed and losses suffered. A loss factor of 1:1 showed the partial inapplicability of a method which had done long service in aviation tactics. There was only the possibility of destroying aircraft (more often light ground-attack aircraft) on unequipped dirt airfields.

One other characteristic feature of local wars. In making strikes against air-fields, modern highly-accurate weapons were hardly used. An exception was several attacks made against the entrance doors of aircraft shelters up ag guided missiles. Fragmentation bombs (and particularly cluster bombs) were dropped not for damaging aircraft parked in the open but rather for hitting personnel. As for the rest these were conventional high-explosive medium-caliber bombs. Thus, many types of attacks maintained their previous content.

It must be pointed out that, regardless of the covering of airfields by surface-to-air missile complexes, the attacking side suffered a majority of losses from the filing of conventional antiaircraft artillery. This was explained by the fact that in fearing to be spotted by the detection and guidance radars of the surface-to-air missiles, the pilots in the strike groups used low altitudes. Avoiding danger from the modern defensive weapons, they fell under intensive firing by "obsolete" weapons which had been quickly readied for use. Thus, the importance of avoidance maneuvers was not lost but rather increased.

Specialists have put the procedures and methods of conducting radio electronic warfare among the new elements which have not been previously tested by fire. In particular, the "blinding--neutralization" method has been approved and has been reflected in the official documents which regulate the combat activities of U.S. tactical aviation. This presupposes initially the neutralization of the air defense system by the establishing of active or passive interference, and then firing for effect against the air defense weapons which have remained battleworthy. New battle formations have appeared which give maximum consideration to the capabilities of individual protective equipment such as the on-board radio countermeasures

transmitters which are installed in combat aircraft. The air defense systems have responded to this by using counterelectronic countermeasures, and this has meant the coming of radio electronic warfare into its own.

As we can see, combat experience cannot always serve as a guide in working out modern tactics, since the conditions for conducting combat operations never completely repeat themselves. For this reason, from the lessons of history we must choose only those which have maintained their value and can be employed in the future.

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CSO: 1801

REASONS FOR FAULTY FINAL LANDING APPROACHES EXAMINED

Moscow AVIATSIYA I KOSMUNAVTIKA in Russian No 12, 1980 pp 28-29

[Article by Maj A. Berezin, military pilot 1st class: "Landing Coming Up"]

[Text] A person's memory firaly retains both the most joyous events and unpleasant moments when he had to blush for his mistakes and oversights. For pilots, memory, in my view, is even more acute. Each person his entire life will recall the successes and, of course, will not forget his major mistakes. And I, although years have passed since then, still remember the reproach on the commander's face and hear his bitter word: "What did you do, Comrade Berezin?..."

"I made a mistake," was all I could say in justification.

"You made a mistake, a mistake, but that is not the first time you carried out such a flight," said the commander in annoyance, and asked:

"And just what do you think your mistake was?"

I mentioned one factor and then another.

"No, that is not it. You simply felt that upon reaching the outer marker the flight was over. But there was a landing coming up...."

Later mentally I returned repeatedly to our talk and always concluded that the commander was absolutely correct. In actuality, in reaching the outer marker, beneath the clouds after carrying out a rather difficult mission in instrument flying conditions, I for some reason decided that the main thing was over and I relaxed my attention. As a result I made a whole series of mistakes and landed the fighter roughly.

That flight became a good lesson for me. Consequently, in flying as an instructor, I also regularly reminded my trainees that in our profession the task is considered fully carried out only after taxiing to the parking area and shutting down the engines. If an air fighter for any reason forgets this, he dooms himself to failure, particularly during flights under instrument flying conditions, in descending on the glide after the outer marker.

Young pilots were working on the piloting techniques in clouds with an instrument approach for landing. The synoptic situation was variable, but everyone was acting

confidently and intelligently. And it seemed that success was also ensured for Lt A. Khokhlov. The officer precisely operated the cockpit equipment, he handled the radio traffic skillfully, and maintained the conditions established by the flight regulations for the stages of the flight.

Unexpectedly on the landing course a dense haze appeared and visibility deteriorated noticeably. And then Khokhlov made a mistake. Almost immediately the ground radioed:

"You are coming into the right of the strip."

The pilot immediately glanced at the instrument and saw a significant error. But the lieutenant did not have enough time to correct this when he heard the bell of the outer marker. Khokhlov was forced to put on power and begin a second landing approach.

An analysis of this flight provided the commander with an opportunity to establish why a potential accident had arisen. The young pilot was early in shifting his attention from the instruments, he converted to visual piloting of the fighter, and began to search for the landing strip. At the same time in no instance should this be done as the lieutenant had very reliable assistants, the compass and course-glide systems and the sutomatic radio compass. With the deterioration of visibility, Khokhlov should have watched their readings even more attentively, looking at the ground and the landing strip only for fractions of a second, making certain that the aircraft was fully under the clouds.

Autumn and winter are the time of the most intensive instrument flights, and the commanders endeavor to fully utilize this time for improving combat skills and for raising the combat readiness of the crews and subunits. The electronic, piloting and navigation equipment of modern aircraft fully ensure the carrying out of the given mission virtually in any weather (and in our regions during the autumn and winter the weather is extremely variable, I would say, capticious). I would give the following example in affirmation.

A tactical flight exercise was underway. A two-plane element led by military pilot let class Capt V. Aksenov received a very difficult mission. The carrying out of this mission required from the air fighters the ability to completely control their will, as well as the most precise piloting and calculation, and boldness. And Officer Aksenov and his wingman fully manifested all of this.

The circumstances developed such that the two-plane element was for a rather extended time in the air. Little fuel remained in the tanks of the fighters, and they had to come straight in. But by this time the weather had changed with the cloud level dropping and visibility deteriorating. But then the pilots did not become muddled, they reached the outer marker without an error, and expertly landed the fighters.

The success was determined by numerous factors. Above all by the outstanding thorough preparation for carrying out the mission, by firm knowledge and professional skills. An important role was also played by the ability of the officers to mobilize themselves and not to let down for a second from take-off to landing. And we must also mention the unshakable confidence of the pilots in the high reliability of the instrumentation on the aircraft.

All of this does not come about automatically. Truth is not lessened by repetition, and it states that true flight mastery and strong moral-psychological tempering are forged by the common efforts of the instructor and the trainee. Here the first word, I am firmly convinced, belongs to the commander. Success is guaranteed by his ability to so arm his subordinate theoretically and practically and shape his nature that no complications become an obstacle for him on the path to the goal of excellent performance of a service duty.

The flight leader, Sr Lt A. Abramyan is known among us as an experienced mentor of the youth. He stands out in his tenacity, professionalism, and the ability to effectively train the subunit personnel for carrying out missions under instrument flight conditions. He unswervingly observes the training principle of from the simple to the complex. Initially he guides his subordinates on a two-man trainer in an enclosed cockpit and then in the clouds. The flight leader pays the closest attention to the precise following of conditions during each segment of the flight and to the observing of the established safety measures. He always makes certain that the young flyers make full use of the piloting and navigation instruments and systems on the aircraft.

For Sr Lt Abramyan, a question of particular concern is to develop the pilots' correct actions in the landing approach. And this is no accident. As practice shows, precisely here—up to the outer marker and after crossing it—the pilots make a definite number of mistakes which reduce flight safety. If an officer notices that someone feels unconfident in the glide path, he immediately requests that the squadron commander increase the number of flights on the trainer.

During preliminary preparations and the analyses, Abramyan endeavors to take up each question down to the last detail when the mastery of this matter will aid in progress. As an illustration of correct or wrong actions, the senior lieutenant gives convincing examples from his personal experience and from the life of the unit or subunit. In analyzing them, the pilots voice their opinions, while the commander supplements, approves or corrects them.

I have already said that the pilots make many mistakes after passing the outer marker. Sr Lt A. Abramyan always emphasizes why this happens. In certain instances, in his valid opinion, the reason rests in the poor knowledge of the aerodynamic features of the operated aircraft.

Sometimes our pilots after the outer marker glide at an increased speed. Then they must sharply reduce engine speed. At times this helps in part but the fighter "jumps" in the glide. And at times they are late in putting the engine controls at slow speed. As a result, not wishing to land long, the pilots landed the fighter at a low landing angle, and with a lead on the nose wheel.

Another shortcoming is gliding close to the ground at a slow speed and high angles of attack. This can lead to a situation where the aircraft enters the second mode of flight and becomes poorly controllable, and this is completely unsafe.

Our other instructors also skillfully and intelligently instruct the pilots in confident actions on the landing course under instrument flying conditions up to the landing of the aircraft. These include the lst-class specialists Haj V. Alabushev and Capt V. Toymentsev. But in this very important question there still are also negative phenomena. Let me refer to my personal experience.

I recall as an inspector I was carrying out a check-out flight with one of the pilots. Up to the landing glide he did not make any mistakes. But on the glide they appeared, in truth, within the established limits. And although the pilot endeavored to correct them, we crossed the outer marker at a somewhat excessive speed.

After the flight I explained where the mistakes had been and recommended how to correct them. I must confess that I was dubious whether the pilot should be permitted solo training or not. Hoping that he would consider my advice and carry out the assignment, I wished him a good flight. But I miscalculated. The officer repeated the mistakes and nearly had an accident.

Such lenience and little exactingness on the part of an instructor are not the sole reason for the errors of military pilots in executing the concluding elements of a flight under bad weather conditions. Some commanders, as a consequence of little experience and flaws in pedagogical training, teach the pilots to use one instrument in the approach and calculation for the landing. At times this succeeds, but when the weather deteriorates, the men do not carry out the mission, they become lost, creating a nervous situation in the flight control group and threatening flight safety.

Sometimes not just the young but also the rather experienced military pilots appear in a rather unenviable light. This usually happens after significant interruptions in training. The desire of the commanders to shape up the pilots more quickly is both natural and understandable, but in no way can one justify a rush or a routine approach to all subordinates. Otherwise you can expect unpleasantness.

At one time a lst-class pilot returned from leave. He was checked out and seemingly everyone was completely confident that he had regained his skills. However soon thereafter, in a solo flight, he made a serious mistake in the final descent, and because of this he landed short of the runway. This is the result of the failure to consider the individual skills of the pilot in instrument flying conditions, and his psychophysiological features in drawing up and approving the retraining schedule.

Far from last place among the reasons for mistakes stands the insufficient moral and psychological preparedness of certain pilots for the excellent execution of all elements of the mission, without exception, from take-off to landing. For precisely this reason I made the error which I described at the beginning of the article. No doubt about it, it is hard to carry out an interception in the clouds, and guide the missile-carrying aircraft over a long route when the cockpit is surrounded by a solid white film. Here you are tired out, but you cannot let down. For increasing volitional development it is essential to make full use of the time spent in exercises on training equipment, during hooded flights, and in clouds on combat training aircraft. From my personal experience I am aware how useful in this regard are individual and group talks by experienced military pilots when reinforced by vivid facts from life. There are also other proven forms and methods of such work.

Undertraining and deviations from the requirements of the flight documents tell negatively on flight safety and give rise to mistakes and potential accidents.

It must not be forgotten that we are preparing ourselves for combat. And in a combat situation the fighter pilots must often for a long time pilot the aircraft in

clouds, with limited visibility, and after this come straight in to the home or alternate airfield. And this requires high skill, endurance and strong will from the pilots. Such qualities must be acquired now, in endeavoring to precisely execute the maneuver for coming in on the landing course, in acting skillfully on the final descent both up to the outer marker as well as after passing it to the landing.

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TRAINING PROCEDURES FOR AIRCRAFT HAINTENANCE CREWS EXAMINED

Moscov AVIATSIYA I KOSMONAVTIKA in Russian No 12, 1980 pp 38-39

[Article by Lt Col G. Spiridonov: "And If the Enemy is Real"]

[Text] The tactical flight exercise was intense and dynamic. The fighter bomber crews, in cooperating with the ground troops, were making flights over long routes. And when the "enemy" made a retaliatory strike, the squadron was shifted to a neighboring airfield and continued combat operations from there.

A heavy load also rested on the IAS [aviation engineer service] specialists. In a short period of time they had to ready the aircraft for the next flights and eliminate the detected malfunctions. The technicians and mechanics worked skillfully and efficiently, and did not make a single potential accident or delay in taking off. In truth, not everything was carried out smoothly and evenly. But as a whole the subunits successfully carried out the given missions.

However, in summing up the results of the work done by the IAS specialists, a low grade was given. Their insufficient preparation and routine in carrying out tactical missions were commented on. The aviators analyzed in detail the conclusions drawn by the umpires. And much that at first glance seemed a minor detail appeared in a different light to them.

The collective learned about the forthcoming exercise and prepared early for it. Under the leadership of the engineers and the deputy squadron commanders for IAS, the specialists carefully inspected the aircraft and ground equipment and checked the documents. The personnel worked on actions during an elert, and changing the different weapons suspension and fueling and lubricants. The activists prepared the necessary materials for visual agitation. In the subunits talks were held on the heroic traditions of our Armed Forces and on the methods of the psychological treating of soldiers in the armies of the imperialist powers, and so forth.

The signal "Assemble!" was given significantly sooner than the assumed date. Some of the group chiefs could not immediately respond properly when the inspectors gave them unexpected inputs. For example, to determine where would be the most probable attack on the airfield by a ground landing party, how to organize the security and defense of the parking areas and positions, how to carry out cooperation with the other crews and provide camouflaging.

Certain aviators experienced difficulties in carrying out not only tactical but also technical inputs. As an example, after landing, on the aircraft they detected broken wheel assemblies and holes in the fuel tank and pressurized cockpit. It was essential to quickly and precisely determine how many junior specialists would be required and what equipment for repairing the aircraft in a minimum time. And when the chief of the flight TECh [maintenance unit] was "knocked out," the individual aircraft technicians were psychologically unprepared to assume all responsibility for directing the mechanics, and they did not maintain the given work pace. In waiting for instructions, they lost precious minutes. Far from everyone could give medical first aid to a comrade. All of this showed that not enough attention had been given to the psychological training of the IAS specialists.

What does this example show? That in individual collectives in practical daily work and in the tactical flight exercises they do not fully consider the recommendations of aviation psychology. The materials of the visual agitation devoted to the moral and psychological tempering of the aviators do not always contain specific advice for the highly effective training of engineers and technicians considering the specific features of their work. And the necessity of this is dictated by life itself.

At one time I happened to be present during the training of mechanics for radio electronic equipment at the TECh where Engr-Capt I. Khalipenko is serving. The exercises were of a demonstration sort, and for this reason experienced specialists were chosen. They were cautioned that in the course of the production operations a combat situation would be simulated. The work commenced at an ordinary pace, but when a siren sounded, there was the deafening sound of tape recorded automatic firing, the light of searchlights shined in the eyes of the mechanics, and many of them became confused. The pace dropped and the sequence of operations was upset. However after two or three such training sessions, the specialists learned how to control their feelings and by strength of will to suppress excitement and confusion.

Having become acquainted with the minutes of sessions of pedagogical councils and party and Komsomol meetings, one is convinced that the questions of the integrated training and indoctrination of the aviators and the instilling of lasting habits of operating the aviation equipment are discussed frequently, but the words are not always reinforced by specific deeds. For example, not every subunit pays attention to nighttime training in aircraft servicing. The specialists do not everywhere learn to perform repairs and maintenance under bad weather conditions.

As is known, on the front the airfield workers labored without considering fatigue or bad weather, at times to the limit of human capability. The famous aces A. Pokryshkin, K. Yevstigneyev, A. Vorozheykin, A. Yefimov and many others had warm and sincere comments about their ground assistants.

Of course, both the combat equipment of the Air Force and the nature of the work done by the aviators have fundamentally changed from before. Now a specialist has no need to perform machining jobs as he has available the PARM [regimental aircraft repair shop], DARM [divisional aircraft repair shop] and TECh. But this in ro way means that tomorrow and the developing situation may not require this from him. And if a technician neglects the scientific organization of labor, and eliminates a malfunction by sight, without using the monitoring and check-out equipment, this can be viewed as professional incompetence.

In the not distant past, the very mentioning of the preflight condition of a technician caused a smile among certain commanders. But now it is being introduced more and more firmly, as how well a technician has rested determines his endurance, the ability to concentrate on carrying out the given tasks, and lack of mistakes in work.

In the military schools, the technicians master the principles of pedagogics and psychology. The obtained knowledge is employed in indoctrination of subordinates. They are the active assistants of the commanders in creating a healthy microclimate in the collectives, a feeling of comradeship, mutual aid and mutual exactingness.

In readying the equipment for a flight, an aviation specialist bears the same responsibility for the successful conclusion of the flight as does the pilot. Here the technician and the engineer must work at the airfield with a shortage of time, and under conditions of increased noise and vibration from operating power units. There has been a significant rise in the responsibility of each aviator for his own work as well as for the success of the entire collective. The demands upon the emotional stability of the specialists, as well as upon their professional skill, are continuously growing.

All these particular features are considered in organizing the training and in indoctrinational practices by the leading commanders, political workers, staff officers and the leaders of the IAS.

As is known, during the period of testing out a power unit, an aircraft technician must consider the readings of scores of instruments, panels and other signaling devices, and must manipulate numerous levers and switches. The rationalizers of the helicopter regiment where Capt Yu. Makarov serves have worked out and introduced a trainer which provides an opportunity for the specialists to gain work skills under extreme conditions, while the training leaders can determine how they have detected flaws and how correctly they have acted in eliminating. Regular exercises on the trainer have helped the aviators acquire confidence in their own forces and improve their professional skills.

The following form of training the aviation specialists is also employed in tactical flight exercises. The aircraft have left on a mission. And soon thereafter the airfield is subjected to an "enemy atomic attack." Contaminated zones were formed and the earth shelters were buried. Moreover, sabotage groups blew up an area of a minic and adding strip built not far from the actual one. The technicians and mechanics, along with the men of the obato [separate airfield technical maintenance battalion] had to rebuild it. At this moment the "enemy" attacked the airfield.... Of course, under such conditions the personnel must work under great stress. But the successful surmounting of difficulties brings great moral satisfaction.

The psychology labs which exist in the leading units have also proven effective. Here on attractively and interestingly made stands and boards, they put up excerpts from the documents of the Communist Party and the Soviet government, the USSR minister of defense and the Air Force command-in-chief dealing with the greater combat readiness of the air units and safe flying, as well as materials generalizing the experience of psychological conditioning as acquired in the collectives, and descriptions of well-recommended procedures and exercises of psychoregulating training. In such labs the commanders give lectures and hold talks and technical

conferences, in illustrating theoretical material with diagrams and by showing actions on mock-ups. Experienced aviators tell the youth how to mobilize air psychological reserves for the highly effective carrying out of combat training missions.

In the regiment where Maj N. Sopov is the flight leader, training is successfully carried out for aviation specialists on a level of the leading teams. With reduced personnel the technicians and mechanics service helicopters in direct proximity to the "frontline" and with a hypothetical enemy. They did not immediately succeed in maintaining steady skills, confidence and a militant mood when a shortage of time arose. There were instances when in a hurry the specialists forgot the technical and medical kits, the technological and other documents, and were lost with the unexpected replacing of members in the operational leading team.

By gradually compicating the training, they succeeded in achieving a rhythmical and continuous cycle of readying the aviation equipment for flights under the conditions of isolation from the main base airfield. Following the method of the combat veterans, they worked in the following manner. While some specialists inspected the equipment and fueled the systems, others, depending upon the situation, maintained the defenses of the parking areas and eliminated the consequences of the air raid, or rested. Then they changed places. The deputy squadron commanders for IAS gave the aviation technicians the maximum possible independence in taking and carrying out decisions under the more complex situation. This developed confidence and reasonable initiative in the specialists.

Well organized party political work and the skillful use of its diverse forms and methods help to instill in the aviators high moral and military qualities and communist conviction which are the basis for the high moral of the Soviet military. In the units and subunits where Officers V. Morozikhin, Yu. Kharchenko, V. Tatarnikov and others serve, meetings with veterans of the Great Patriotic War are held regularly, including on the eve of tactical flight exercises. In a tactical flight exercise, a combat leaflet is issued each day. It tells briefly about the events which occurred in the regiment on such a day in wartime. And next to this are the portraits of those who are worthily carrying on the baton taken over from the combat veterans, as well as information on their achievements in combat training. Information on the results of carrying out flight missions and on the quality of the preparation of aviation equipment is also well received. All of this improves the mood of the aviators and causes in them a desire to work even better.

Examples of a different sort are also encountered, when short-sightedness in selecting the forms and methods of moral and psychological conditioning ends with undesirable consequences. At one time a group chief conducted a training session in an aircraft cockpit under conditions of limited visibility. Its objective was to develop in the specialists firm skills in working on night shifts. Having forgotten that there were young men in the group, the chief set the same high pace for all subordinates. As a result, a young technician confused the buttons and...jettisoned a wing tank. He was so depressed by the failure that he began to make mistakes also in an ordinary situation.

This is what ensues from an insufficient study of the individual features of the aviators and a neglecting of the recommendations of psychological science. Practice shows that such failures are excluded where advanced experience is thoroughly analyzed, and where constant attention is paid to the moral and psychological conditioning of technicians and engineers as an important means for increasing the effectiveness of the training process.

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TRAINING FOR HELICOPTER FLIGHT TECHNICIANS DESCRIBED

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 12, 1980 p 40

[Article by Maj Tech Serv V. Fadeyev, deputy squadron commander for the aviation engineer service: "In a Shortened Time"]

[Text] The mood of all the crew members was high as the mission had been carried out successfully. Our commander, Lt Co' V. Belik, one of the experienced helicopter pilots of the unit, had crossed all the points of the route at the precisely designated time. The systems and units of the helicopter operated reliably, and seemingly nothing could prevent the carrying out of the flight mission on a high level. And suddenly the helicopter shook strongly. But the instruments did not show any failures in the operation of the engines. For this reason the commander, and I could see this clearly from my position, calmly, as if nothing had happened, changed the mode of the power unit and the rotor thrust. The shaking of the machine declined somewhat. But through the noise of the engines you could still hear a whistling. Ordinarily this appears with damage to the rotor blades. Lt Col Belik decided to abort the flight.

On the ground, in inspecting the helicopter, they established that the tip of one of the blades had broken off. The reason was a collision with a bird.

First of all, I, as the flight specialist, carefully examined the helicopter and made certain that there were no other damages to it. Then, having determined the amount of repairs, I planned what help could be given to me by the other crew members and what supplies and tools would be required for the repairs. In a short period of time we replaced the tip, and soon thereafter the crew was again continuing the flight.

Practice shows how important it is for the aivators, including the flight specialists, to be not only experts of their job, but also be able to maintain calamess and restraint under difficult conditions. The commander and the leaders of the IAS [aviation engineer service] services give great attention to developing psychological strength in the technical personnel as well as the skills needed for successful work under extreme conditions. These questions are discussed at technical conferences and in the pedagogical council of the unit, at party and Komsomol meetings and flight analyses. On servicing days, during preliminary preparation days, and in technical training sessions the IAS personnel under the leadership of the experienced specialists, Sr Lts Tech Serv A. Gorlov, P. Gulimov, and A. Andryushchenko, works on the methods for readying the equipment for flights and learns to perform elements of field repairs independently.

Many of our specialists repeatedly have acted confidently and coolly in a difficult situation related to extended physical and emotional stress. This was the case in rescuing people from flooded areas and in extinguishing forest fires. Engr-Maj L. Kulikov, Capt B. Nasyrov and other leading officers have been commended by governmental decorations for courage and bravery. The young IAS specialists in the squadron are indoctrinated from the example of the best aviators.

...Work was in full swing at the helicopter parking area. This day the crews had to perform several complex technical operations, including the replacement of rotor blades which had been in use the established time, the disassembly of units for inspection at the regimental TECh [maintenance unit], and the inspecting of oil filters. At the very peak of readying the equipment, the weather turned bad and rain poured down. The deputy regimental commander for IAS ordered work to continue. The specialists took measures to prevent moisture from getting into the helicopter systems. The bad weather did not reflect in the organization and quality of the work which was carried out fully. Precisely such conditions provide a broad opportunity to develop in the aviation specialists tenacity and purposefulness, confidence and independence, and sound skills in operating the equipment. For this purpose the cockpit trainer is widely used and this makes it possible to completely work through the actions of a flight technician in special flight conditions.

"You have the input: 'Fire!'"

The leader of the training session started the stopwatch which was located on the trainer board. The flight technician carried out the required operations in a strict sequence. Here he was obliged to stay within the established time. If he did not keep within the given time or did not observe the sequence, the equipment immediately recorded this. An evaluation of the preparedness of the specialist appeared on an electronic display board.

In the course of training sessions in the helicopter cockpits, the flight technicians learned to locate malfunctions and prevent them in detecting indirect indications. For example, before working through one of the exercises, the instructor loosened the connection of an instrument sensor. Naturally its readings would not be reliable. The flight technician from the back-up instruments should establish the reason for the failure, and propose to the instructor the ways for eliminating it and establish whether the flight could be continued.

As is known, the flight technician during a flight helps the pilots conduct visual orientation and helps establish the hovering area of the helicopter for participating in jobs involving towing cargo on the exterior suspension. Practice has shown that many young technicians experience difficulties in performing the duties of a [lift] operator. This is no surprise as they must work in an unfamiliar situation, by the open door of the cargo cabin. They should possess a good eye, be able to determine the precise distance to the ground or to the water surface, and precisely coordinate their commands with the actions of the crew commander. We teach the specialists this using trainers and in landing at unmarked pads. In preparing for the flights, the flight technicians, Sr Lts Toch Serv L. Slivets, Yu. Kovalenko, E. Basilyuk, S. Rossiyskov and others willingly share their experience with the young aviators, and teach them to keep secure and to give the commands tersely and confidently.

The leadership of the squadron IAS, and in particular Sr Lts Tech Serv I. Sharapov, V. Sorin and others, thoroughly study the professional qualities of the flight technicians and their individual traits. Certainly the efficiency of a crew depends largely upon the psychological compatibility of its members. The chiefs of the flight TECh and the group chiefs who possess rich experience, while still flight specialists, in practice were repeatedly convinced that increased irritability or taciturnness, conceit or excessive shyness on the part of even one aviator can tell negatively on the work of the entire crew. The extensive indoctrinational work conducted in the collective helps to create an atmosphere of mutual understanding and comradeship in the troop collectives.

For a long period of time the squadron specialists have not committed a single potential flight accident. A majority of the helicopters has been awarded the insignia "Outstanding Unit Helicopter." This is a worthy present by the aviators to the coming 26th CPSU Congress.

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STUDY EXAMINES DOCTRINAL FOUNDATIONS OF SOVIET STRATEGY

Paris FONDATION POUR LES ETUDES DE DEFENSE NATIONALE in French 7 Jan 80 pp 140-159

[Article by Alain Coutrot, Henry Cuny, Henri Palacio, Henri Paris, Lydia Rolland, Jean-Christophe Romer: "The Doctrinal Foundations of Soviet Strategy"]

[Text] This study has been carried out by the Research and Studies Group on Soviet Strategy, under the auspices of the FONDATION POUR LES ETUDES DE DEFENSE NATIONALE. This group, whose membership changes from time to time, includes 7 members from a variety of disciplines who have in common a knowledge of Russian and of several other oriental languages.

At present the group is composed of Alain Coutrot, Henry Cuny, Henri Palacio, Henri Paris, Lydia Rolland, and Jean-Christophe Romer. It is led by Henri Paris.

This research has generally used original sources which are considered preferable to second-hand sources often affected by political presuppositions and at times containing incomplete or inexact translations. This approach has the advantage of making it possible to study the system from within and to grasp its internal logic without making value judgments.

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Chapter V: Soviet Military Thought

Whether Marxism-Leninism remains the living credo of the Soviets or whether it is no more than a collection of dead formulas, it is no less the case that Marxist doctrine has shaped Soviet thought since 1917. The military thought of this country also cannot fail to be marked with the imprint of Marx, Engels, Lenin, and Stalin. Also, although war is a phenomenon which transcends frontiers, one must expect differences at the level of military concepts, differences which justify the specific characteristics which the observer notes in the force systems of this country by comparison with those, for example, of the United States.

Soviet military thought offers the example of an extremely complete, vast, and complex conceptual whole. No aspect of that which touches the military domain can escape Marxist-Leninist thought. Naturally drawn to dialectics, the Soviets look for rigorous coherence, going as far as the smallest details in order to eliminate contradictions.

In spite of this coherence, one can nevertheless note the existence of some nuances in the interpretation of established dogma according to different authors. These nuances, however, are not sources of incoherence or of contradictions. They result from an often ambiguous delimitation between different concepts. In effect, any politicomilitary theory has a subjective frontier between the political and the military. To that might be added the existence of interaction between the poles of the same concept: for example, present and future technology necessarily reflects on present and future theory and practice.

On the other hand, at the moment of the development of the dogma one can witness a clash of ideas, b inging together contradictory, even antagonistic opinions. This debate often is even provoked with the objective of bringing out all conceptual solutions that are possible, when a fact which might modify a previously established assumption appears. The discussion can then bear on the most theoretical and the most fundamental aspects of military thought, such as on questions of pure tactics at the lowest echelons.

That is the way Marshai Talenski described it in a LA VIE INTERNATIONALE, No 12 of 1961: "Armaments based on nuclear rockets—this extraordinarily powerful means of mass destruction—have given excessively destructive forms to war. Presently, war threatens the death of hundreds of millions of men and promises the destruction of the material base of existence of many countries. That is why war can no longer be simple continuation of politics."390 Talenski took up these same arguments in the Soviet press in 1965; Zorine, in 1963; Dmitriev presented this thesis in IZVESTIA on 24 September 1963; N. Nikolski defended similar ideas in his book, "The Fundamental Question of the Present," in 1964. Thus, for several years there was a debate on questions of unit attack dispositions and the initiative of unit commanders. The military officers involved were even invited to experiment with their theories on the ground. 391

When the solution has been found and adopted, it acquires the status of law, and the debate is definitively closed.

After having defined the principal constituent concepts of Soviet military thought, we will seek to determine and to analyze the different interactions and relationships between these concepts.

A - Definition of Concepts: Military Doctrine and Science

In spite of an often common vocabulary, conceptual differences appear between Westerners and Soviets. Western military thought is generally included in the term of strategy.

However, this term, in itself, has ceased to be clear and to correspond to a precise definition since the end of World War II. Previously, strategy only concerned military operations. Since then, this term has been so much used and even abused that its acceptance has been considerably extended. Outside the leadership of armies or the art of making war one often uses the word strategy as a synonym for politics, without, moreover, giving the latter a more precise sense. It also happens that strategy is made the equivalent of tactics. One even speaks of the strategy of a business enterprise! Hence, it is necessary to add a modifying word, for example, military or economic, so that the term strategy corresponds to a clearer definition. In fact, the rather recent imprecision of the term only reflects the progressive complexity of the modern world in the preparation and use of force.

The word strategy, as it exists in all Indo-European languages, comes from the classic Greek word Freategia. It concerns at the same time the command of the troops of the city and the operational concept of this command.

In its present sense, all definitions of strategy prepared by Westerners involve a common platform which an inspired formula of General Beaufre summarizes: 392 strategy is the art of combining all the forces of one or of several states with a view to obtaining a result determined on by a policy. All these terms are included in the broadest sense and take fully into account a characteristic of the modern world: forces no longer concern solely military force, armed forces. Other forces have appeared successively, such as the economy, technology, whose application converges on the same objectives defined by the policy of a state. Therefore, there is a global or general strategy which is subdivided into economic strategy, research and development strategy, etc, alongside a military strategy which is applied more specifically to the armed forces. It is in this way that the British speak of a "grand strategy" as "the art of the most effective application of the power of the state."393 This formulation is very close to that of the French military regulations 394 which, however, under the term general strategy give privileged position to the military aspect: "the art of combining the totality of the means available to the political powers in order to attain objectives which the latter have defined in terms of defense or of the conduct of the war." With the term "national strategy" the Americans are on the same basis.

In this concept tac ics are the art of combining arms and armies with a view to attaining a concrete objective decided on by military strategy.

An essential point emerges: for the Westerners strategy is an art. It concerns the application of a range of theoretical and technical knowledge to a practical achievement, as distinguished from science, which is a system of knowledge bearing on a given matter. The art of strategy is not lacking in rationality. That is even absolutely indispensable and must be extremely rigorous because it is a critical analysis of present and future situations. The same mathematical determinism applies both at the level of the study of new weapons as well as that of general synthesis. Even chance obeys a series of casualties which can be calculated and

therefore end in a mathematical model. Nevertheless, scientific rationality which offers a mathematical tool has its limits: it gives no satisfactory solution to the problem of choice based on several criteria. Now, there is the last step to which the art of strategy must devote itself. Intuition, and therefore subjectivism, will necessarily intervene in the process of decision.

Thus strategy is a body of knowledge which is not closed and which cannot be rationally apprehended in its totality, involving margins of uncertainties. It involves a generally relativist concept of truth. In other respects, neither are the basic facts concerning the future at hand, because it is not a question of integration to some philosophical and political system which obeys laws and which makes it possible to determine with certainty the evolution of the world. At its ultimate stage reflective thought will seek a synthesis but will find itself confronted with a series of hypotheses and inevitably will become contemplative, without making it possible for a new mathematical analysis to offer a solution. The problem can only be decided by the use of intuition, allied to experience. In this sense the art which strategy is relates to a spirit of finesse, opposed to the spirit of geometry, as Pascal had determined.

However, the Kennedy-McNamara administration, at the beginning of the 1960's, introduced into strategic research new procedures based on a more scientifically conceived rationality, aimed at eliminating a measure of subjectivism. The concept took form in the United States itself with the assistant secretary of defense, Alain C Enthoven, and influenced the behavior of all Westerners. This kind of rationality calls on systems analysis, which brings together strategic planning, weapons systems programming, and economic resources with the ultimate objectives of defense. This gives direction to strategic choices. 395

The search for a rational and scientific model has been pursued beyond systems analysis, but this is only a matter of using a tool, an aid to decision making.

With regard to the Soviets, they integrate strategy into a larger whole: that is, military science, which itself is subordinated to military doctrine.

The fundamental point on which is based all of Soviet military thought is its rigorously scientific character. Contrarily to the majority of Western thinkers, the Soviets consider that there are "objective laws" of war, determined by the scientific character of Marxism-Leninism. The scientific character of military thought is therefore conceivable, since it concerns a human science. In that connection it is sufficient that it is based on fundamental laws, verified by experimental studies (historical or statistical), that it uses experiment as a means of investigation, and finally that it is served by qualified personnel.

However, as a particular science of a particular state—in this case a socialist state—the future of Soviet military thought is the same as the future of war. In other terms, contrary to the other sciences which have a universal value in space and time, Soviet military thought will no longer have a reason for existence when wars are definitively banished from the planet, that is to say when, in accordance with Soviet ideology, communism will have conquered capitalism definitively and will have become the single world system. Therefore, this is a matter of a completely different science with its universally applicable laws, but a science—as

paradoxical as that may seem--which is provisional in character. 396 It follows that when they say that, "as long as imperialism exists there will exist the danger of an outbreak of war," they can add that as long as imperialism exists, Soviet military science will exist, but the latter will disappear simultaneously with imperialism and, therefore, war.

With the scientific character of Soviet military thought thus established, it is a matter of defining the principal constituent concepts of that thought: military doctrine and science.

1 - Soviet Military Doctrine

Military doctrine is closely linked to Marxism-Leninism. It is the point of departure of everything which touches on the military domain in the Soviet Union.

By military doctrine the Soviets mean, "a system of points of view, officially adopted by a given state, on the character of war and the procedures for its conduct, and the manner of preparing the country and the army for it.

Military doctrine responds to at least the following essential questions:

- --with which enemy will one have to deal with in an eventual war?
- --what character will the war have, in which the state and its armed forces will have to participate; what are their objectives and their problems in this war?
- --what armed forces are needed to resolve the problems presented and in what direction should military organization be led?
- --how should preparation for war be accomplished?
- --by what means should war be carried on? 397

This is a matter, therefore, of a theoretical whole of directing principles, and, "one can divide the entire contents of Soviet military doctrine into 2 groups of reciprocally related questions, politica, and military."398

The political aspect also concerns internal as well as external policy, as well as the social system. It determines the objectives, the tasks, and the general organization of the armed forces, in correlation with the accepted facts of military theory. This military theory is studied both under its political aspect as under its properly military aspect, by the reciprocal action of military science.

For the Soviets this concept is not exclusive to them: "each state has its military doctrine," 399 and "what constitutes the cornerstone of the military doctrine of any state is revealed as the concept which it holds of the essence of war." 400 If the answers to the questions which Soviet military doctrine poses are not immutable, the questions denote a certain constancy due to the scientific character [scientificite] of Marxism-Leuinism. Thus, Marshal Sokolovski, some 10 years before Marshal Grechko, stated that military doctrine was, "the expression of points of view accepted by the state concerning the political appreciation of future war,

the attitude of the state towards war, the determination of the character of future war, the preparation of the country for war on the economic and moral levels, the development and preparation of the armed forces, and the procedures for the conduct of war."401

These questions are all based on an immutable "cornerstone": "the class character of all war" and the opposition between capitalism and socialism. In other terms, in the century of nuclear weapons the well-known theories of Marx, Engels, and Lenin retain their force. It is therefore in the nature of the capitalist regime that it is necessary to look for the sources of any war. However, if "at first the sharpness of the contradictions between the imperialist states or the coalitions of which they are members seem to be the principal cause why these states go to war ...at the actual moment the contradiction which appears in the forefront, the principal contradiction, is that which exists between the two antagonistic social systems."

The answers still in force to these cuestions define the enemy as imperialism with all its objective allies, including the Chinese "schismatics," "the 16th member, in fact, of NATO." The character of future war is determined by the classifications and typologies prepared by Lenin. 402 To that is added a new factor, a function of technology: will the war be nuclear or not? The role of military doctrine is thus to envisage all the hypotheses corresponding to the series of possibilities determined from a point of view which is simultaneously ideological, political, and strictly military. The armed forces needed are therefore those which answer to all the assumptions and particularly the principal one: general conflict between socialism and capitalism or, on other words, between the Warsaw Pact and NATO. By its nature this armed conflict is implacable. It will go on, therefore, until the exhaustion of the means of carrying on the war in the possession of the belligerents. Therefore, it will necessarily be a nuclear conflict, a total war. One of the 2 camps will have to disappear. However, limited conflict is possible, although the limitation only bears on the geographic space of the conflict and in no case on the nature of weapons employed, since this conflict, by its nature, is quite as implacable as general conflict.

This classification of conflict provides for the existence of civil wars in which the proletariat is opposed in the struggle against the national bourgeoisie of their country. "Peaceful coexistence" absolutely does not prohibit the Soviet state from supporting the proletariat engaged in conflict, but quite to the contrary. This kind of conflict is illustrated by the Soviet intervention in Afghanistan. The last kind of conflict concerns wars of national liberation, such as have occurred in the Indochinese peninsula or in Algeria.

The doctrine furthermore has a unifying role. In effect it has as an objective ensuring, "the unity of mind and of will of Soviet soldiers by means of a community of political ideology and by a common way of looking at the military objectives proposed, the means, and the methods."

2 - Military Science

Military doctrine is translated into practice and theory in military science. This military science chematically includes two great, essential branches. In the first

place it concerns the study and preparation of the organization of the country with a view to war, as far as the economic aspects as well as the political aspects and the properly military institutions are concerned. The second branch concerned the conduct of war, or the "military art." It is subdivided into 3 disciplines strategy, the operational art, and tactics, all of which, taken together, also include procedures of leadership, training, and education of the troops.

The Soviets insist on the scientific aspect of military science when they define its object. "Soviet military science represents a synthesis of human experience, acquired in the sphere of military activity, and a system of knowledge about war, its nature, its objective laws, military organization, the preparation of the army and of the country to repel aggression, and the procedures for the conduct of war. In its research this science is founded on the theoretical and methodological positions of Marxism-Leninism and uses the contributions of other sciences."404

Military science is also, in itself, a human science, because it concerns the activities of man, and an experimental science, in the sense of Claude Bernard, because it is supported by experience. It is always ruled by scientific methods of research and scientific explanation of the phenomenon that war is, considered as a human and social activity. The examination of facts leads to the formulation of fundamental laws which are verified by experimental studies of other scientific branches already well advanced, such as history, statistics, etc. The whole of science, which is applied to the material aspects of any society, is applied in an integral fashion to its military aspect and particularly to military science.

Marxism-Leninism continues to furnish a basic methodology, as it is desired to provide a base to all science developed in the USSR. Military science is no more an exception that sociology or cybernetics.

However, military art, of which strategy "constitutes the higher sphere," is not only a science. It is also "art" in the sense that it does not require the rigorous application of objective laws. Regarding the conduct of war, it also requires talent for the proper application of these objective laws. This problem was the object of a long debate in the 1920's and 1930's. There were 2 extreme positions presented in the USSR, one considering that strategy demanded the absolute application and nothing more of the laws of war, which at the time remained to be discovered in part. The supporters of the other position advanced the view that success depended on the value and the genius of the leader, and not on laws whose field of application was hypotherical. Under the leadership of Frunze and Tukhachevsky, a solution was found in this median position maintained up to the present. Thus, the criterion of the value of the military leader, brought out by the formula of Clausewitz which says that in war, "talent and genius act on the edges of the law," is rejected forcefully because of its anti-scientific character. It is the same with luck in combat: it does not exist. There only exist objectivity, reasoning, and the application of the laws of wer, 405

The object of strategy "in the strict sense" is therefore the conduct of the armed forces in war. But is also concerns the study and preparation of these armed forces. That is the object of the theory of strategy, and one of its problems is therefore found to be the prospective one, which requires the study of future war and the development of methods and forms for its conduct. It is the theory of strategy which determines the means and the composition of the forces necessary

for the accomplishment of the objectives established by politics, through military loctrine. It is therefore concerned with the development of the forces and with their preparation in view of war. In these conditions it is certainly not wrong to state that strategy is considered to be the upper realm of military science. In fact, it embraces almost all data concerning military theory and, reciprocally, its impact on military doctrine is profound.

Marshal Sokolovsky thus defined strategy: "military strategy represents a system of scientific knowledge concerning the laws of war, considered as an armed conflict in the name of definite class interests. On the basis of the study of experience in war, of the politico-military situation, of the economic and moral potential of the country, of the new means of fighting, and of the views and potential of the probable enemy, it studies the conditions and the character of future war, the methods for its preparation and its conduct, the types of armed forces and the foundations of their strategic employment, as well as the foundations of the material and technical support as well as the direction of war and of the armed forces.

"Furthermore, military strategy is the domain of practical activity of the supreme military and political leadership, of the high command and of the higher general staffs relating to the art of preparing the country and its armed forces for war and of carrying on the armed struggle in concrete historical conditions."406

That provides for the following, detailed field of application:

- "-- the study of the general laws ruling armed conflicts;
- -- the conditions and the nature of future war;
- -- the theoretical foundations for the preparation of the country and of the armed forces and the principles of military planning;
- -- the different kinds of armies and of arms and their strategic employment;
- -- the foundations of civil defense;
- -- the methods of conduct of armed conflicts;
- -- the bases of material and technical support of armed conflicts;
- -- the bases for the command of the military forces and of war in general;
- -- the strategic attitudes of probable adversaries."407

These factors therefore pertain to the objective side because they relate to the scientific aspect of strategy. "The laws of strategy are objective and apply impartially to the 2 opposing sides." Knowledge of the general laws of war and the methodical study of data make it possible to foresee the nature of military events and thus to apply its laws with success. "This is the subjective aspect of the utilization of objective laws." Therefore, there is where art is to be found: the manner and the rigor with which scientific data will be applied.

The operational art occupies an intermediate place between strategy and tactics. It concerns the operations of the different armies in their theaters of operations, considered separately. It concerns, more generally, operational groups. This conception covers what a French military thinker of the 18th century, Guibert, was thinking of when he spoke of "grand tactics." Just as the operational art is subordinate to strategy, tactics are subordinated to the operational art. "It includes the theory and practice of combat of all units." 411

The level of the operational art is generally situated at that of a division and below.

- B The Dynamics of the Conceptual System
- 1 An Analysis of the Interactions

The Soviets consider their military thought either as a whole or as a system. By definition the whole, the system include elements in interaction.

It follows that the Soviet strategic conceptual system resembles very well a model based on the reciprocal actions of its components.

Military science was profoundly influenced by the technological revolution applied to armaments in the second part of the 20th century. The Soviets, like the Westerners, have clearly perceived that the nuclear weapon, accompanied by an intercontinental means of delivery and by electronics, has completely overturned the characteristics of war. But, as distinguished from the Westerners, they have drawn only one conclusion: this weapon only underlines the implacable character 412 of a struggle which puts socialism and capitalism in conflict. The nuclear weapon has no transcendent character. 413 Its use is therefore inscribed in the nature of things, and reflection on the matter must only be directed to its most effective use. By extending the theater of operation to the whole of the planet the nuclear weapon permits the annihilation of the principal adversary, the United States, or its neutralization. Only the nuclear weapon permits such a result, because without it, it would have been impossible to carry the war to American territory, whereas the reciprocal of that is not true. The nuclear weapon, a principal instrument of strategy, obtains a decision immediately which, at one time, could only be achieved by the sum total of tactical successes. 414

However, the ultimate objective of war, and this is quite particularly valid for Western Europe, remains the occupation of territory, the installation of another political regime, and its control. 415 Thus, it is confirmed that only the offensive responds to this strategic objective. 416 The whole of the Soviet military apparatus is oriented "on the decisive and total crushing of the adversary."417

Thus, both because the adversary possesses nuclear weapons and the escalation to 'he extreme limit of violence is considered unavoidable, and because this weapon responds particularly well to the demands of total war, future world conflict will be nuclear and "will be carried on essentially by strategic nuclear means: surface to surface intercontinental ballistic rockets, strategic airpower, missile-launching atomic submarines." 418 "A simultaneous nuclear strike against the vital centers and the means of combat of the enemy country is the most rapid and the most reliable

means of obtaining victory in a modern war." The strikes must be directed at all of the countries of the opposing coalition possessing important military bases. 420

These properly technical elements necessarily have an influence on military doctrine. In effect the armed forces and the country must be prepared for such tasks, which go beyond the properly military framework. In effect, "the principal positions of military doctrine are established and modified in terms of the political and social regime, at the level of development of the productive forces, in terms of the new achievements of science, and in the character of future war."421 According to the Soviets, the practice of the policy of "peaceful coexistence" has only been made possible by the level of development of the armed forces. This practice, raised to a norm of foreign policy, has been translated in turn into a line of strategy around which military science has been deployed.

Outside of nuclear weapons, the modifications in the physiognomy of the air-ground battlefield have involved more and more changes which extend from the lowest tactical echelon to the highest level of strategy. Electronics are only one element among many others, including the nuclear element. The growing cost of the military apparatus requires an orientation of military doctrine and, therefore, a political choice. The qualification of personnel acquires an importance corresponding to the sophistication of the materiel, 422 which dictates not only a personnel policy but also certain imperatives before which the political work of the Party must itself give way. "It is necessary to pay particular attention to ensure that a high level of study is given to personnel research concerning ground, air, and sea combat, to field exercises, and to general staff leadership exercises. In connection with this fact, it is of great importance to plan and to conduct the political work of the Party in absolute conformity with the concept of the studies, taking into account the particular aspects of the theater of operations of the probable enemy and of the possible character of the combat."⁴²³

If in fact there are interactions between military doctrine and military science and their components, it remains no less the case that there is a hierarchical relationship, whose summit is occupied by politics.

2 - Strategy and Policy

Whether it is an art or a science, depending on the different concepts, strategy pursues objectives defined by politics. Elsewhere, whatever the concepts, it is found in the same technological framework. However, can strategy and politics have a separate development or be independent of each other?

While admitting that the final objectives are political, strategy obeys its own imperatives which are separate from any kind of politics. This position was defended at the beginning of the 19th century by a German theoretician, Friedrich von Bernardi, 424 and supported by a whole school of thinkers. Many representatives of the German Grand General Staff, including Generals von Schlieffen, von Moltke, and Luddendorff, held to this point of view. According to them, politics must adapt itself to military requirements. Elsewhere, it played and ended its role by declaring war. During the hostilities it has nothing more to do than remain in the position of a passive observer.

The advent of the nuclear era was to provoke a trans; .tion of the ideas of Bernhardi. In the eventuality of a nuclear war, any form of politics is emptied of sense, faced with the inevitability of massive destruction. From this fact the celebrated formula of Clausewitz, "War is the continuation of politics," has no more validity, because nuclear strategy imposes itself in such a way that no political decision can be realized by means of nuclear weapons. 425 Beyond General Beaufre in France, this current of thought has found adherents in several Western European nations, 426 as well as in the United States in various degrees. 427

In a general way these opinions have not been accepted in the West. In France Raymond Aron affirms the primacy of the political, as well as General Gallois. General De Gaulle was to underline it with force. In the United States, if General Maxwell Taylor, in "The Uncertain Trumpet," remains ambiguous in demonstrating the revolution which nuclear weapons bring, it is no less true that the solution which he recommends, with "flexible response," aims at restoring deterrence, while providing an opportunity for graduated response, that is, providing for the possibility of negotiated political actions. In this course the supremacy of the political, affirmed by President Kennedy, 428 by McNamara, 429 and by President Nixon, is inscribed in the same line of action. 430

The Soviets have always shown a total unanimity of view, recalling Lenin in his remarks on Clausewitz: "War appears even more 'warlike' the more political it is in depth."

Chapochnikov, a former colonel in the imperial Russian army who became a military adviser of Stalin, beginning with the period before World War II, criticized the thesis of the German school of Bernhardi. 431 Subsequently, all of the Soviet military theoreticians and thinkers have expressed themselves against the concept of a transcendancy of nuclear strategy. For the Soviets, strategy can only be totally subordinated to politics. Even in time of war, the political apparatus of the country does not lose its rights and its duty of decision. It is a matter for politics not to go against the laws of war, which demands study and political personnel trained in military questions.

Regarding nuclear weapons, they have indeed brought a revolution in strategy. They are indeed weapons of massive destruction, but it is not necessary to make them sacred or make a "fetish" out of them. They are weapons like others in their final purpose, which can only be political, like that in any war.

Beyond other ideological arguments on the nature of war the Soviets join the Westeners in recalling the essential role of the economy and of technology in the makeup of nuclear forces and arsenals. Now, it is the political powers who determine the percentage of national wealth devoted to the armies. It is always the political powers which, in a general way, determine a policy aimed at improving or not improving the military apparatus as a function of the objectives which they have determined.

Elsewhere, if one now considers the manner of preparation of the strategic concept, one notes that Soviet military strategy sees itself as a science founded on laws and on the comparative, rational study of opposing strategies and forces. The study of the enemy potential has at all times been undertaken by all military

leaders. On the other hand, it is a specific, Soviet characteristic to pose as an intangible principle the view that there are laws of war separate from the study of military history and from experimentation.

No other system of reasoning takes military history so much into account. According to the Soviets, there can only be strategic study with the assembling of a sufficient number of writings which relate military events. Ancient history is relatively poverty-stricken in this regard: beyond the "anabasis" of Xenophon and the "Commentaries" of Caesar, ancient history offers nothing remarkable. The Middle Ages are even poorer as a source. The first author really to have made a study of strategy was Machiavelli. 432 However, strategy as an objective science was only able to exist with the appearance of Marxism applied to raw material which constituted an event correctly related and verified or to previous military concepts, on condition that they were explained and which do not limit themselves to a succession of rules. Engels, with his work on the defeat of the Commune of Paris, thereby offers the first example of a Marxist work on military strategy at the same time that he draws attention to the importance of the military factor in the class struggle. The constant factors which show themselves on examination are the result of laws which it is a matter of discovering.

Strategy is not a closed science. It evolves as a function of numerous, fluctuating factors. That is why it is absolutely necessary to examine history in order to find the laws which alone will provide the possibility of victory in a future conflict. Thus, under present conditions, that is, those of a fundamental change due to the appearance of new technologies, military history has a further and increased importance. 433 The reasoned study of military history, furthermore, "puts one on guard against excesses of the imagination and of the extremes."433

Another interest is found in the fact that military history is an instrument which shows the process of the direction of wars: it is a tool for training the military mind, which makes it possible to dissect the reasons for a decision. The last factor is the following: "Military history is of precious value as a means for the ideological education of the armies." Anot only does military history provide the means of verifying the correctness of Marxist-Leninist science, but in the era of coalition wars it contributes to an understanding of the allied armies.

However, military history carries with it a danger which, moreover, it denounces itself: that of "the mechanical application of the lessons of the past." In military matters, even more than in others, "The Marxist must take life into account, the precise, real facts of reality, and not stick to the theory of yesterday." 435

Strategy is studied in the 23 military academies and institutes, which require a higher level of studies for entry. 436 The most prestigeous academies are: "The General Staff Academy" and "The Frunze Military Academy." These 2 institutions are specially charged with theoretical military studies in close relationship with the "Institute of Marxism-Leninism," with the "Academy of Sciences of the USSR," and the "Institute of Military History of the Ministry of Defense." The "Institute of World Economy and International Relations" and the "Institute for the Study of the United States of America and of Canada," both of which form part of the "Academy of Sciences," have a preponderant role in the establishments associated with the military academies.

In fact, the preparation of strategy is carried out at the Party echelon, either directly or indirectly. The state organisms are emanations of the Party, as the state is, moreover. 437 "On the basis of the ideological and theoretical heritage of Harx, Engels, and Lenin, the Communist Party of the Soviet Union and the other, fraternal communist and workers' parties successively and unflinchingly enrich this (strategic) study by new positions and conclusions in relation to the changes in conditions, the balances of forces at the different stages of human society, and the objective tendencies of the historical process, "438 It is fully logical that strategic thought should no more escape the Party than any other thought. The Army itself, as an institution, is a political army. It is the army of the Party 439 as such as of the country. "The leadership of the armse forces by the Party is shown to be the essential principle of the military organization of the USSR, "440 and 90 percent of the officers are members of the Party. 441

The process of symbiosis is therefore total and absolute. Military officers are present in all Party organs, including the Central Committee.

The Party, through its organizations, is present in the whole army, which furthermore has a Directorate of Political Administration which administers specially trained officers. However, contrary to a tenaciously-held lagend, there are no more political commissars, and the abolition of the duality of military and political command in units was carried out during the litetime of leain. The lack of responsibility under the pretext of collective leadership is the gravest evil for all those who do not have very much experience in terms of practical, collective work. Quite often, in military affairs, it leads inevitably to catastrophe, to chaos, to panic, to a pluralism of powers, and to defeat.

3 - Conclusion

If one artificially abstracts from the ideal giral character petuliar to the Soviet system, it seems that a rapprochement with Western suscepts is possible, despite differences of terminology. This is so because, if I w terminology is different, the total field that it covers is quite in same. In french concept of "defense policy" covers, to large part, the Scales rescept of "military dectrine." The part which is not covered is found, awar, the French, is pelemical studies on the nature of war, in general strategy, and is military strategy. In its concrete application the conduct of the armies, the Priet term for military strategy, has a much more limited sense than in the West, It corresponds to what the French understand by operational atrategy. However, when one includes all of the strategic, theoretical studies aimed at the anticipation of war and at reciprocal exchanges of weapons with the other disciplines of Soviet military setence, Soviet military strategy covers a field which is much vaster than that defined by Western terminology. Regarding the operational art and tacting, according to the Soviet concepts, they seen to correspond to the executive sari of operational strategy and tactics, in the sense which the French give these terms.

On the other hand much more essential differences appear at the level of the coherence of the whole. Societ military doctries and dilitary sience, with their higher domain formed by strategy, seem very national to include the problem of armed force in a total right. Such a whole taxes into account all aspects of the problem and resolves all the internal anothradicities with small appear. It is not so certain that, in the western nations, the element of internal strategies, in all their aspects, are in absolute accord with military strategy. However, it is at the level of concepts of "art," of "science," and of "laws" that irreducible differences seem to appear. The Westerners still characterize strategy as an art, in spite of a vigorous search for rationality. In this view strategy therefore depends very much on the human factor, on talent, and can therefore change as a function of man. The Soviets do not deny the value of the human factor, quite to the contrary. However, they see in man that which applies from the laws, whose objectivity is essential and even overwhelming. For them, strategy is a scientific system on the basis of laws and is therefore totally rational.

In order to end with a definition of strategy which could satisfy all parties, it would be necessary to suppress the terms of art, science, or law. One could say of military strategy that it is the use of force in the service of politics. However, such a formulation runs the risk of not being accepted by either of the 2 parties and would only mask the problem. However, the Western tendency to build a scientific analysis minimizing the human factor could, over the long term, lead to a common basis with the Sovieta.

Chapter VI: Conclusions

The present study constitutes a first, theoretical stage, necessary for the definition of Soviet strategy. However, beyond strictly ideological elements, it would be necessary subsequently to consider, on the basis of this context, more concrete questions of Soviet strategy. In conclusion, therefore, we will bring out the role of ideology in the development of Soviet strategic thought.

When one goes through Soviet works on strategy, one notes that their authors make incessant reference to Marxist-Leninist ideology, the dominant ideology of the Soviet system and state. This ideology is brought in to explain the direction of history, the nature of the principal enemy, and the propagation of the ideas of the World Communist Movement in the world. In this sense ideology is necessary for the preparation of the strategic concept and for the knowledge of its main lines. On the other hand, it is not sufficient to appreciate its variations, its applications, its geopolitical implications.

A - Ideology Is Necessary

It seems that one could subdivide ideology into 2 distinct levels: a first level, permanent, non operational, theoretical—which one could call "ideological ideology"—and a second level which is more operational, more in relationship to the political evolution of the state, which one would call "practical ideology."

1 - Permanence of Certain Directing Themes (Ideological 'deology)

As a general rule the concepts pertaining to this category have undergone no modification since their preparation by Marx, Engels, and Lenin. They represent the constancy of Marxist-Leninist ideology beyond all quarrels between different schools, beyond all schisms, and are the meeting point for all tendencies--Muscovite, Trotskyist, Maoist, and others--among those who claim communism. Moreover, contrary to other concepts--notably that of "practical ideology"--they existed before the establishment of the socialist regime--in this case the revolution of 1917.

The 2 principal themes representing this level and directly concerning the preparation of strategic thought are the universal character of communism and the nature of the principal enemy.

By virtue of the universal laws defined by Marx and Engels, the evolution of societies is definitively determined by the direction of history (see the Introduction). According to these laws communism constitutes the final stage in the evolution of societies, in the sense that, under communism, the 2 principal agents of social change will have disappeared—the state and social classes—and that consequently history—the history of the class struggle—will have come to an end. On this point the Chinese and the Soviets are perfectly in agreement. Their points of difference are found at the level of the practical manifestations of these themes and more particularly at the level of timing.

Thus, at the time of the 22nd Congress of the CPSU, Khrushchev promised the achievement of communism by 1980:443

The Chinese are much more prudent and think in terms of centuries.

However, in any case, any communist party-whether in power or not-believes, because that is scientific, in the final victory of communism, sooner or later.

The other permanent theme flows from the first one. It concerns the nature of the principal enemy. Communism will not be definitively victorious until when it will have eliminated the social system which is historically previous and inferior to it, the system of capitalist production and its ups and downs: competitive capitalism until the end of the 19th century, monopolist capitalism or imperialism since the beginning of the 20th century. There also, all tendencies of Marxism-Leninism are together in stating that this is the principal enemy. The differences appear when it becomes a matter of knowing who is the imperialist and therefore the enemy: is the USSR a "social imperialist" state, as Beijing states; is China the 16th member of NATO in fact, as Moscow states?

However, beyond these contingent questions the basis remains. In order to win, communism must eliminate the capitalist system and become the single world social, political, and economic system, as capitalism was in the 19th century.

Those are the 2 permanent, principal themes of Soviet ideology which one can consider as constituting the permanent, established dogma. Thus, one can note that the essential character of this level of ideology is to be simultaneously transhistoric and autonomous in terms of politics. This character is very largely relative when one moves to the second level of ideology, "practical ideology," which adapts itself more easily to certain historical phenomena of a medium and long term nature.

2 - The Adaptation of Ideology: Practical Ideology

The established dogma--"ideological ideology"--is found at an extremely abstract and general level and demands the creation of concepts which are also integrated into the conceptual field of Soviet ideology, but which are susceptible to being adapted to the general, historical situation of an epoch. In other terms, the

theoretical implies the existence of a level which is more practical, more operational, adaptable to the fluctuations of history and of politics.

Responding in this way to the messianic principle of the final victory of communism over the system of capitalist production, the Soviets have developed 2 ideological concepts corresponding to 2 given, historical moments. Contrary to the higher level of ideology, these 2 concepts are inherent in the existence of the Soviet, socialist state.

Until the beginning of the 1920's Soviet doctrine stated that the victory of communism would take place through the armed export of the revolution. Such a concept corresponds simultaneously to the enthusiasm which reigns at the beginning of any revolution and to the voluntarist nature of the thought and the policy of Lenin. After the failure of the war against Poland the Soviet leaders abandoned this theory, leaving this role of agent of the revolution to the national sections of the Comintern. Thus, after the middle of the 1920's the general philosophy of the Soviet system was modified. For the voluntarist, Leninist concept of history was substituted a determinist concept, more in conformity with the objectives which Stalin had established.

In the aftermath of World War II there would appear a new concept—up to then it had served rather as a slogan and had not been erected into a theory—referring to the victory of communism in the new international conditions: peaceful coexistence.

At the time of the 19th Congress of the CPSU in 1952 Mikoyan stated that "the ideas of communism will surely win without war."

Thus, despite their apparently contradictory character, these 2 concepts of Soviet ideology-armed export of the revolution and peaceful coexistence-are the 2 faces of the same dogma, at 2 given, historic moments, and are perfectly in conformity with this dogma.

On that basis it turns out that, if war is no longer inevitable, it should not be excluded for that matter. Hence the necessity for a powerful, military apparatus.

B - ... But Insufficient

It cannot be denied that ideology can neither cover nor explain everything. Further, since by its nature it is strongly resistant to change, "practical ideology" cannot be immediately adapted to an event such that one does not know in advance whether it will have consequences of a structural order or not. It is quite understood that such an event should not have an effect on the first level of ideology ("ideological ideology") by the very reason of its autonomy in terms of history and politics.

I - The Influence of Events

For tactical reasons Soviet policy at times has been directed against established dogma to serve strategic objectives. The Soviet-German pact of 1939 thus constitutes an example of an opportunistic alliance with "objective enemies" of communism. On the other hand the signature of this pact responded to the needs of Soviet strategy in the face of the danger of war.

More recently, the intervention in Czechoslovakia in 1968 permitted Westerners to attribute to Soviet ideology a new, ideological concept: the doctrine of limited sovereignty, or "the Brezhnev doctrine." In fact, what is called limited sovereignty amounts to a modification of the concept of proletarian internationalism which took place before 1968 but which, of course, acquired all its force from that point in time. The concept of proletarian internationalism therefore actually involves 2 variant forms: 1) socialist internationalism, which is a sort of "superinternationalism" and only applies to the countries of the socialist community; and 2) "international solidarity" which is a "soft" internationalism used by the Western communist parties and more particularly by the Eurocommunist parties. In effect, it was the latter which insisted that this term replace that of proletarian internationalism in the final document of the Conference of European Communist Parties in June, 1976.

One can thus note that, without its being truly a change in ideology, one is seeing a softening of terminology when it does not amount to a rupture, radical but provisional, serving precise objectives.

However, besides the influence of events, it is necessary to insist on the character of ideology which is particularly resistant to change.

2 - The Resistance of Ideology to Change

By its nature extremely rigid, ideology, as we have noted it, reacts slowly to change and, before adapting itself, waits to find out whether the present situation is only provisional or whether it will become a constant factor of political life, capable of being integrated into the conceptual field of ideology. This dormant period can occur in two ways: when the idea persists after the event or when the event has been transformed into a structural phenomenon but is not yet included in the ideological field.

Thus, when the Soviet Union had constituted its buffer zone around its frontiers, a buffer zone constituted by the people's democracies, the concept of capitalist encirclement—although used more rarely—persisted until about the years 1952-1953. This persistence, at the time, was justified by the fact that capitalist encirclement was not a solely geographical concept but was above all political in nature. In consequence, as long as imperialism would persist in its aggressive intentions toward the USSR, the socialist camp would have to consider itself as encircled, even if the balance of strength was changed in favor of the USSR. A more recent illustration of this concept was provided by the Soviet intervention in Afghanistan. Some, in effect, interpreted this intervention as the manifestation of preventive action against a new attempt at encirclement of the USSR, resulting from the recent treaties signed by China with Japan, on the one hand, and with the United States, on the other.

Another example of this dormant state between reality and doctrine can be illustrated by the Cuban crisis of the autumn of 1962. The attempt at installation of nuclear missiles in Cuba by the Soviets was found to be in complete contradiction to the official policy of peaceful coexistence.

Inversely, one notes that changes of a structural character have taken some time before being integrated into the conceptual field of ideology.

Thus, when in 1917 the first socialist regime in the world was established—that is to say when capitalism—or imperialism—ceased to be the only socio—economic system of universal scope—but when capitalism found itself faced with a regime which was totally antagonistic to it, the Soviets did not make this fact into a concept until 1930. It was at this moment that the concept of the general crisis of capitalism was presented as the manifestation of imperialism at the time of the division of the world into 2 antagonistic systems. 444 Therefore, it took 13 years to provide a theoretical description of the change. In the same way 7 years went by between the creation of the socialist camp in 1945 and its theoretical description in 1952 under the form of the concept of the second stage of the general crisis of capitalism.

One could provide another example of the decoupling of official statement in comparison with the facts: that of the understanding of the Nazi phenomenon. Enclosed n their dogmatism, the Soviet theoreticians did not perceive the specific character this phenomenon, merely classifying it in one of their already established categories. It was only after 1935 that the Comintern would authorize the communist parties to fight against Nazism.

From these different aspects of ideology, one can thus deduce that the concept of military strategy is indissolubly linked to ideology. Soviet military strategy serves and is served by ideology. In these circumstances the apprehension and the understanding of Soviet ideology are indispensable elements for the decrypting of the strategic discourse: distinguishing what is essential from what is not; interpreting the variations of strategy in terms of the variations of the ideological discourse. Finally, ideology makes it possible to bring out the directing lines established for strategy: the concrete designation of the enemy; the implacable character of a war with imperialism; the necessity for the offensive; the concept of total war and keeping the rear areas firm; and the essential importance of the first phase of the war, whatever it may be.

Once these directing lines are traced, it is appropriate to analyze Soviet strategy in terms of European security, which will be the object of a second report. This study will need to respond—or to sketch out responses—to 4 fundamental questions:

1 - What Is the Soviet Perception of the Relationships of Forces?

This perception is still largely dominated by the heritage of Yalta, but the division of the world made at that time was incomplete and leaves room for the preparation of oblique strategies, among others in the Indian Ocean and the Persian Gulf. That is, in that part of the world whose membership in this or that zone of influence has not been fixed. The intervention in Afghanistan is the most recent illustration of this.

2 - What Kinds of Conflict Threaten Europe?

Is the notion of limited conflict applicable to the European framework? Should this qualifying term be understood in its geographic meaning (local conflict as opposed to general conflict) or in its military sense (level of weapons used)?

Could a limited conflict in the European theater be carried on, or not, using only conventional weapons?

What are the Soviet concepts for the employment of various weapons?

On the other hand, is a general conflict possible?

Through the SALT negotiations, aren't the Soviets seeking to decouple the defense of the United States from the defense of Europe, in the same way that they are seeking to decouple the French strategic force and the European defense force?

Finally, what is the Soviet perception of Western deterrence?

3 - What Are the Salient Characteristics of Soviet Military Potential?

Where and how can it be used? What place is given to the various weapons? What meaning should be given to the establishment, in a particularly short period of time, of a powerful Soviet Navy?

4 - What Are the Hypothetical Scenarios Which Could Unleash a World or European Conflict?

This question is intimately linked to the preceding one. In effect, the study of military potential provides evident indications regarding the conditions in which it could eventually be used.

However, one must also ask oneself about the very nature of the international crises which could degenerate into a European or world conflict, whose origin could be as much political as military or economic.

"The transition from capitalism to socialism constitutes the essential meaning of our epoch. Irreversible historical processes logically make socialism the single social system capable of assuring to the peoples of all continents the accomplishment of their dearest objectives. A third of humanity is already on the road of socialist development."445

The ways which the USSR imagines will lead in turn into the same camp the other two-thirds of humanity--and among them the peoples of Western Europe--are they rapid enough to satisfy them?

FOOTNOTES

- 390. This debate on ideas is presented in METODOLOGICESKIE PROBLEMY VOENNOJ TEORII I PRAKTIKI (Methodological Problems of Military Theory and Practice), Moscow, Voenizdat, 1966, p 33
- 391. The debate was sufficiently broad in scope for the Western military press to echo it. Cf REVUE INTERNATIONALE DE DEFENSE, Sep 1978 pp 1405-1410.
- 392. A. Beaufre, INTRODUCTION TO STRATEGY, Paris, Armand Colin, 1964.
- 393. British Field Service Regulation.
- 394. French Inter Service Regulation.

- 395. Cf C. J. Hitch and R. N. McKean, THE ECONOMICS OF DEFENSE IN THE NUCLEAR AGE, New York, 1965.
- 396. Cf MARXISM-LENINISM ON WAR AND THE ARMY, Moscow, Progress Publishing House, 1976, p 527.
- 397. A. Grechko, VOORUZENNYE SILY SOVETSKOGO GOSUDARSTVA (The Armed Forces of the Soviet State), Moscow, Voenizdat, 1975, p 340.
- 398. Ibid., p 344.
- 399. Ibid., p 341.
- 400. Ibid., p 346.
- V. Sokolovskij, VOENNAJA STRATEGIJA (Military Strategy), Moscow, Voenizdat, 1963, p 54.
- 402. See Chapters I and II above.
- 403. MARXISM-LENINISM ON WAR AND THE ARMY, Moscow, Progress Publishing House, 1976, p 523.
- 404. A. Grechko, op. cit., p 313.
- 405. Ibid., pp 328-338.
- 406. V. Sokolovskij, op. cit., Moscow (Third Edition), 1968, Chapter 1. (English translation by Harriet Fast Scott, published by Crane, Russak, and Co., New York, for the Stanford Research Institute, 1968, p 11. The editions of 1962 and 1963 contained in nearly the same detail the same definition. No mention was made of the word "potential" either for the friendly side or for the enemy side. That may indicate a less profound study of these 2 problems.)
- 407. Ibid., Chapter 1. English translation, p 8. The 1962 edition contained this enumeration with the exception of the question of civil defense, which was added in the 1963 edition. This corresponds to the strong surge of civil defense in the USSR after 1962.
- 408. Ibid., Chapter 1. English translation, p 9.
- 409. Ibid., Chapter 1. English translation, p 9.
- 410. Guibert, GENERAL ESSAY ON TACTICS, Paris, 1803. Partially republished, Copernic, Paris, 1977.
- 411. A. Grechko, op. cit., p 354.
- 412. METODOLOGICESKIE PROBLEMY VOENNOJ TEORII I PRAKTIKI, p 87.

- 413. A. Grechko, op. cit., p 191. ("....Despite the colossal power of nuclear weapons, military science does not treat it as an 'absolute weapon'").
- 414. METODOLOGICESKIE PROBLEMY, p 87 and A. Grechko, op. cit., p 353.
- 415. V. Sokolovskij, op. cit. (English translation), p 276.
- 416. Cf Sidorenko, THE OFFENSIVE, Moscow, 1970 (Introduction).
- 417. A. Grechko, op. cit., p 345.
- 418. Ibid., p 194.
- 419. V. Sokolovskij, op. cit. (English translation), p 276.
- 420. Ibid., p 278.
- 421. GREAT SOVIET ENCYCLOPEDIA, Moscow, 1971, Vol 5, p 205.
- 422. About 70 percent of Soviet officers have diplomas as higher grade technicians or as engineers.
- 423. A. Grechko, op. cit., p 390.
- 424. Friedrich von Bernhardi, MODERN WAR, Berlin, 1912.
- 425. A. Beaufre, STRATEGY FOR TOMORROW, Paris, 1974.
- 426. Federal Republic of Germany: Rendulitsch, ARMS MODIFY POLICY. Great Britain: Kingston, McCloughry, GLOBAL STRATEGY.
- 427. H. J. Morgenthau, POLITICS AMONG THE NATIONS, 1949.
- 428. Message to Congress of 28 March 1961.
- 429. Speech of 17 February 1972.
- 430. Message to Congress of 9 February 1972.
- 431. Chapochnikov, THE BRAIN OF THE ARMY, Moscow, republished in 1975 with a preface by General Kulyikov, chief of staff of the Soviet Armed Forces and first vice-minister of defense of the USSR.
- 432. V. Sokolovskij, op. cit. (English translation), p 5.
- 433. A. Grechko, op. cit., p 358.
- 434. A. Grechko, op. cit., p 321.
- 435. Cited in A. Grechko, op. cit., p 321.

- 436. These 23 academies are comparable to the 52 universities in the civilian sector. Soviet military education includes also 125 schools at the higher level (diploma is comparable to a French "licence") and 13 schools at the middle level. Cf., POLITICAL AND SOCIAL PROBLEMS, Documentation Francaise, Number 305, 4 March 1977.
- 437. Article 6 of the Constitution of the USSR of 1977.
- 438. Volkogonov, VOJNA I ARMIJA (War and the Army), Moscow, Voenizdat, 1977, p 5.
- 439. Articles 65, 66 and 67 of the Statutes of the Communist Party of the Soviet Union.
- 440. A. Grechko, op. cit., p 32.
- 441. Ibid., p 237.
- 442. V. I. Lenin, POLN. SOBR. SOC. [sic], op. cit., p 46.
- 443. It is necessary to state that such a project has never been taken up by the Brezhnev team!
- 444. See Chapter I above.
- 445. G. Mirski, THE PROBLEMS OF THE NATIONAL LIBERATION MOVEMENT, Novosti Press Agency, Moscow, 1971.

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CSO: 8119/0425

NAVAL FORCES: TRAINING AND RELATED ACTIVITIES

Pacific Fleet Combat Preparedness

Moscow KRASNAYA ZVEZDA in Russian 4 Jul 80 p 2

[Article by Admiral E. Spiridonov, commander Red Banner Pacific Fleet: "From Positions of Combat Preparedness"]

[Text] The 25th CPSU Congress put forth the task of further improvement in planning as the most important one. Speaking at the Congress, Comrade L. I. Brezhnev noted in particular the necessity to raise the level of planning work and to bring it into conformance with the new requirements of the times. The party's instruction pertains in full measure to the military personnel who are organizing the combat training of troops and naval forces.

Now, when direct preparations for the 26th Congress have begun, it is important to comprehend what has been done during past years, to generalize the experience which has been accumulated, and disclose unused reserves. The decisions of the June (1980) plenum of the CPSU Central Committee require this of us.

Joining actively in the pre-congress socialist competition, the seamen of the Red Banner Pacific Fleet are persistently improving their ability and skill and strengthening the combat preparedness of the ships and units. The accomplishment of these large-scale and difficult tasks is unthinkable without proper planned development.

The requirements of the guidance documents and the instructions of higher organs are the basis of planning combat-training measures by the fleet's staffs and political organs. But analysis shows that work which is being conducted in accordance with a common procedure brings different results in different fleet units and forces. What is the reason for this?

Facts show that there are greater successes where a business-like creative approach is displayed and where planning is conducted with consideration of the Lenin principles on the scientific nature and complexity of the plan and its conformance with the tasks for a further rise in combat preparedness. It is important to ensure the plan's specificity and balance and the personal responsibility of the executors. This is exactly how planning problems are resolved in the naval aviation regiment which is the best in the Navy judging from the results of the winter period of combat training and in the unit of ships which includes the "Petropavlovsk" large antisubmarine [ASW] ship—the initiator of socialist competition in the Navy this year.

The commander of the "Petropavlovsk", Captain 3d Rank A. Kuz'min, for example, carefully analyzes the crew's actual capabilities and the level of training of the combat crews in planning. In determining the sequence of accomplishment of tasks by the subunits, the interests of interaction between the departments and the coordination of the entire ship's crew are considered without fail. Naturally, the training plan is supported by the specific obligations of the sections in the competition for tasks and standards.

But it is still not enough to draw up a plan which is in no way inferior to the standard models. In order to be equal to the best in training and level of combat preparedness, it is also necessary to organize the accomplishment of the plan as well as they do. The basic problems arise right here, at the junction of the plan and life.

Here is a typical example. A ship was to be tested in the accomplishment of a ship-type training task. On the eve of going out to sea, the staff checked the crew's readiness, as a result of which it was necessary to postpone the time for taking the test. Unquestionably, the fault was that of the ship's commander who did not ensure the crew's readiness for the accomplishment of the training task. But the guilt of the staff, which took notice at the last minute, as they say, unquestionably was just as great. As a result, the planned measure was postponed and the schedule was disrupted.

Meanwhile, it is not so difficult to avoid errors. It was sufficient for the staff to be interested in good time in how preparations to pass the ship-type training task test were actually proceeding on the ship. It was not necessary to appoint an entire commission for this. A competent staff officer is capable of providing an overall grade having become acquainted with the basic documents, questioning specialists selectively and visiting drills and lessons. The only thing required of the flag officer was isplay of foresight, knowledge of the general course of affairs on one ship or another, and knowledge of the ship commander's personal qualities. In other words, not only the overall volume of work but also the style is important. And it is namely the flag officer who sets the style.

It happens that certain extreme circumstances objectively may not permit a ship or airplane to accomplish one or another planned combat-training exercise on the appointed day and hour. Life introduces adjustments and it is impossible not to reckon with them. But such cases are few, and their influence on the course of combat training is not great. Subjective factors affect the discipline of the plan much more often. It is namely here, in the organization of the matter, in the style of control that we find the main reserve for raising the quality and effectiveness of combat training.

Let us take the N-th force of ships. At one time, individual ships fell behind in accomplishing ship-type training tasks. The situation developed in such a way that the responsible officials who have the right to give the ship-type training task tests were away from the unit for various reasons. The rhythm of combat training proved to be disrupted.

The commander of the force who committed errors in his work deserves serious reproach. But if we look for the main reason then it, in my view, consists of the costs in the style of control, in an insufficient level of staff efficiency which manifested itself in a lack of respect for the plan's discipline. The commanders and the chiefs

drew up the plan themselves, approved it, coordinated with higher echelons, and called upon the commanders of ships to ensure its accomplishment.... The result is well known. Evidently, in summing up the result consideration should also be given to moral costs, to that damage to the indoctrination of subordinates which is caused by this case.

In the end, our plans should ensure the high combat preparedness of the fleet and a steady rise in the personnel's ability. And this requires a tireless struggle with simplification and indulgences, beginning with the planning stage. As was stressed at a recent conference of leading command and political personnel of the Armed Forces, it is necessary to utilize daily combat training more completely for indoctrinational purposes. For this, it should be organized and conducted in such a way that it would be possible not only to work out combat standards and procedures, but also to temper the will of people in a genuine manner and develop in them endurance, boldness, and combat activity, applying the working out of these tasks in good time to the concepts and plans of forthcoming lessons and exercises.

In the plans approved by the fleet command, it is envisioned that each combat exercise, ship-type training task and drill will be accomplished in a situation which approximates a combat situation and against a difficult tactical background. It is the duty of force, unit and ship commanders to organize the realization of what has been conceived skillfully and in good time. But we cannot forget that planning is a continuous and creative process and the one who mechanically selects measures from the annual plan for weekly and daily plans without considering the current situation errs profoundly. The principle "from the simple to the complex" should be observed at all levels of planning.

This is just how the matter was set up in the N-th submarine unit. Here, it is persistently seen that each measure of combat training is accomplished in accordance with the plan and planning discipline is at the center of attention of the staff and the political department. The systematic, well thought-out and skillfully organized training at the base and at sea contributes to a growth in the skill of the seamen and a further rise in combat preparedness. It should be noted that a responsible attitude of the unit commander and personnel of the staff and political department toward the accomplishment of the plan disciplines the ships' commanders and mobilizes all personnel for the quality accomplishment of missions.

Of course, there are also individual defects here. But they are not ignored and the eyes are not closed to them. On the contrary, the accomplishment of plans for each period is accompanied by a self-critical analysis in which the tone is set by the communists-leaders. This helps to disclose the reasons for individual errors, make the guilty strictly responsible, and extract lessons for the future.

An important condition for the further raising of planning discipline is effective monitoring of the course of combat training. Questions of monitoring and checking execution are constantly examined by the fleet's military council, being guided in the majority of cases by the reports of the combat training officers. Communists V. Korban, G. Petrov, V. Timchuk, and others often visit the ships and take part in long ocean cruises. They make a profound study of the experience of the best commanders and staffs, generalize it, and achieve its propagation everywhere.

Socialist competition—an integral element of our state, socialist planning—is called upon to play the mobilizing role in the struggle for high quality in combat training. The spirit of competition and professional rivalry which is directed toward raising combat preparedness in every possible way and the unconditional accomplishment of the plans and programs for combat training should permeate the entire life of each military collective.

New capabilities and new quality were attached to this work by the movement for leading force. The experience of the N-th ship force, which was approved by the fleet's military council, is instructive in this regard. The commander, staff, and political department of the force closely tie the plans for combat and political training with the struggle for the accomplishment of socialist obligations and they organize competition between crews objectively. Here, they are able to assist the commanders of ships to attain the high level or coordination of the combat sections and they solve questions of tactical, fire, and special training in inseparable unity. The staff and political department participate actively in the formation of the socialist obligations not only of the crew as a whole, but also of individual subunits to include the personal obligations of the officers and warrant officers [michman]. With such an approach, the staff has available detailed information on the goals planned for the force as a whole as well as for specific ships and it considers this information when planning combat training.

The men of the Pacific Fleet understand clearly their responsibility for the security of the socialist motherland's Far Eastern borders. Our primary mission is to be in high combat readiness. In ensuring the accomplishment of this mission, reached by raising the level of planning and achieving the unconditional accomplishment of the plans we constantly remember the words of Comrade L. I. Brezhnev that the tremendous efforts and material expenditures of the people on the equipping of the army, the consciousness, combat ability, and discipline of all servicemen, the skill of command personnel in control of the troops, and much more are concentrated as if in focus in the combat readiness of the troops. remember and are guided by this in all our practical activity.

Black Sea Fleet Training

Moscow KRASNAYA ZVEZDA in Russian 12 Jul 80 p 2

[Article by Vice Adm V. Samoylov, 1st deputy commander of the Red Banner Black Sea Fleet: "To Stimulate Creativity"]

[Text] Preparations for the 26th Party Congress caused a new upsurge of creative activity in all elements of the fleet organism. The scone of the pre-congress socialist competition is expanding on the ships and in the units. All this is creating a good basis for raising the effectiveness and quality of combat training and for the introduction of the leading experience which has been accumulated on exercises and long cruises.

Now, the requirements of the June (1980) plenum of the CPSU Central Committee concerning the necessity to approach everything favorable cautiously and, at the same time, to look upon omissions and shortcomings critically have become a reference point in all our work. In particular, the special attention of military personnel is deserved by the problem of bringing training conditions close to the realities of

contemporary battle. It is namely here that great reserves are placed for a growth in the ability of the men and for raising the combat readiness of the ships and units. Let us take a typical example.

If we judge from reports, they trained thoroughly for the training battle on the destroyer "Naporistiy." The commander of the ship, Captain 2d Rank A. Yermakov, and the officers of BCh(combat unit)-2 reported that drills in the complete scheme for the forthcoming firing had taken place in the crews. However, as a comprehensive check by higher headquarters showed, not all elements had been worked out here with high quality. The ship was not permitted to accomplish the combat exercise.

A thorough analysis of combat training on the destroyer showed that this failure was in no way due to randomness. It was necessary to apply considerable efforts to correct the matter. The shortcomings have now been or rooms. Recently, for example, in the presence of the commander in chief of the navy, Fleet Admiral of the Soviet Union S. Gorshkov, the destroyer accomplished difficult firing successfully upon an unexpected special situation.

When you talk with one or another commander, you tended envisived that each of them has a correct understanding of the entire harm of oversity diffication and indulgences. But, nevertheless, why does gravitation toward oversimplification gain the upper hand over common sense among some of the commanders and the sperate in a training battle according to stereotype? There are many reasons for this. I will mention only some of them.

Of course, the commander who has poor personal angulal, tartital, and firing training is hardly capable of displaying creativity and initiative. All this nappens at times because the process of command training form put ment writen gray requirements in some places. Did the flag officer and chief of staff and really see that the commander of the destroyer "Naporistiy" worked and virtually the very same variant of weapons employment? They could not see it because amounts they thenselves created a standard situation.

Unfortunately, the faulty method of coathing is, it is a verome everywhere. In this method, ready stereotyped schemes are the intermediately which can be called nothing other than barriers in the path, to restivity and independence. Some commanders, not being completely confident of the time state of training of all officers and combat crows without exception for the time state of training of all officers and combat crows without exception for the time that is a combat exercise, prepares the previously detailed bactery or time to emplex or crow bimself. At sea, when the situation requires the redesignation of firers, the amander sometimes does not decide to do this. The striving of intrinsic and amanders to obtain a high grade at any cost to also manifested in the deart, for favorable conditions when they wait, as they say, for the weather at the particular, firings for record under any pretext, and medimes try to reduce the range of the salvo or strike for a great quarties.

Of course, instances of indulgences and oversing liftcation in combat training lie primarily on the concience of the sall section, and the lift should be said specifically that here must also deposit on the partition of the said specifically that here must also deposit on the partition of the officers.

The commander's creativity is needed in support and stimulation. It is important for the successfully accomplished training mission by a group of ships, let us say, to give preference to the commander who operated decisively and boldly and looked for and found innovation in tactics. On the other hand, in order to exclude indulgences it is necessary to place the commander in those conditions where he will be stimulated to creativity and active operations by the very course of events.

Instructive experience in the training and indoctrination of commanders has been accumulated in the N-th unit of ships. A flagship ship's combat crew has been created here through whose demonstration drills all young ship commanders passed. A commander is permitted to perform exercises for record only when he has accomplished the established minimum of attacks in the training room. All commanders are attracted to the competition for the right to be called master of torpedo attack. The conditions for awarding it are defined by a special statute. A necessary requirement for a master is a creative approach to the accomplishment of tactical missions. Captain 34 Pank V. Concharenko is now leading in the competition.

In evaluating the commander's actions in training battle in the unit, they are guided by the rule: to consider the tactical as well as the firing indicator. In other words, to consider the distance from which the "enemy" was hit, how maneuvering went, and what new procedures the commander used. Here, an attack which was accomplished successfully judging from the final result but which took lace under simplified conditions, according to stereotype, receives condemnatio at the critique. Here, they recall the incident where a crew received a low grade for an attack which was completed with the destruction of the target. As an analysis showed, the commander employed the weapons at a short range and did not consider the "enemy's" active operations. A comprehensive critique of this episode served as an instructive lesson for all officers.

In the injectional or and training of ship commanders in the unit, great credit belongs to the flag officer—the leader with the creative vein. The role of senior commanders in the struggle for the effectiveness and quality of combat training and in the struggle against indulgences and oversimplifications is great. The development of any commanders and the molding of the best qualities of the organizer of a naval tattle in them proceeds with their active participation.

We are striving to see that each of our flag officers possesses the qualities of the contemporary leader who should, as is required by the decisions of the PSU fearers, there withis simulative army spirit with profound competence and discipline with initiative and a creative approach to matters. High qualities are realized in the work style. Unfortunately, some chiefs replace patient traising of commanders will generalized, iterfere in their work without necessity, or even assume control of the stip. It happens that the flag officer does not give a strict evaluation in the action of a measurers under simplified conditions and now and then, being fulfield in making alternative of the force's prestige, increases the trade.

The command, staff, and political directorate of the fleet attach the most serious challenges in the indoctrination of the indoctrinators. Their work style is continuously and the military council's center of attention. An evaluation of omissions are represented to the principle is given at critiques of exercises and realists. And it is not to chance that much that is new appeared in the operational and the training of the flag officers and individual work with each of them

improved. However, the requirements imposed on the organizers of training and indoctrination are continuously growing and we still have such to do in this direction.

Let us say that it is impossible to overcome simplifications without further improvement in planning. However, there still are cases where some staffs are already laying the foundation for certain indulgences even while planning training measures.

Thus, the staff of the unit where Captain Pd Pank M. Boblikov serves planned a sea battle for two groups of ships. It was envisioned that the opposing sides would leave the bases simultaneously and, without losing radar contact with each other, would begin to deploy for the exercise. This simplification entailed others. The factor of surprise which is typical of contemporary battle was reduced to naught. The necessity for mutual search disappeared. In this situation, the struggle to seize the initiative and the possibility of being the first to launch a strike bore a pre-arranged nature. These are the costs of the simplification permitted by the staff. Of course, there is little benefit from such as exercise.

But you see, it was worthwhile to stagger the departure of the groups of ships and to disperse them covertly as favorable opportunities agreed for the creative combat work of the flag officer, staff, and commanders. The ships could conduct a meeting engagement which, as is known, is one of the most difficult types of battle.

The attempt was made to explain the pre-arranged dature here by rangers for observance of safety measures. Unquestionably, prudence is necessary un an exercise with the actual employment of weapons. But a thorough analysis of obtasions showed that they were encendered primarily by becoming accustomed to stereotype and formalism.

Stereotype is especially tenacious where exercises are constantly conducted in accurrance with a so-called standard plat. It should be especially discussed. Of course, leading experience in the use of veapons and epitment in contemporary battle is embodied in each such plan. However, it can be taken only as a principle for the disposition of forces and organizing the battle and as he used with consideration of specific conditions. In a naval battle, where stereotype is unacceptable, one cannot get by with a correction and tying together of standard plane alone devertheless, in some staffs they are simply copied. This shows intrative and paralyzes creativity. Therefore, when the battle situation changes had been not conform to the standard plane, the participants is not find the current saturation at once. This shortcoming occurred some time tack in the init where Taptain-Lieutenant V. Bakonin serves.

Naturally, the most decisive struggle is telde waged in the fleet against such simplifications and indulgences.

With consideration of the increased rule of the control organs, our staffs are being replenished with well-trained flag specialists who represent considerable experience in long voyages and the use of weapons and and ment in content cary naval battle.

We are deviting serious attention to the selection at labetrination of ship commanders. In accordance with the requirements of the PC Tentral Committee's decree, "On further improvement of ideological and political-independent on a party reactions which is party reactions in evaluations of what has been achieved, are rightly a reserve in the disclosure of

unused reserves, and maintaining a creative attitude toward matters in every possible way.

In analyzing what has been attained critically, we see unused reserves and unrealized possibilities in the struggle for the effectiveness of each hour of training, each minute of sailing, and in the struggle against indulgences and simplifications in combat training. The efforts of commanders, staffs and political organs, and all personnel of the fleet are being concentrated on the solution of these problems.

On Board ASW Ship 'Ochakov'

Moscov KRASNAYA ZVEZDA in Russian 31 Jul 80 p 2

[Article by Capt 3d Rank V. Mamay, deputy commander of large ASW ship "Ochakov" for political affairs: "We Are From the 'Ochakov'"]

[Text] They stood on the poop: the commander, Captain 2d Rank A. Ryzhenko and the executive officer, Captain 3d Rank V. Bviridov.

Aleksey Alekseyevich was taking off for study in the academy.

"Viktor Petrovich," Pyzhenko embraced the executive officer. "Soon you will be the commander of the 'Ochakov.' Try to preserve the title of outstanding ship."

"We will do everything necessary," Sviridov answered, being upset.

The large ASW [antisubmarine warfare] ship "Ochakov" was declared outstanding in 1975, not long before the opening of the 25th CPSU Congress. At that time, and every seaman now knows about this, there were 75 percent first—and second—class specialists on the ship. The crew accomplished all training missions, including long cruises, in an excel ent manner. This high position also became a unique reference point for us from that time. And you see, conscript seamen were replaced 10 times suring the years between congresses, about 25 officers had left the crew upon promotion, and commanders had changed. In 1976, the "Ochakov" became the initiator of the commentation in the Navy and in 1978 it was awarded the Challenge Red Banner of the Komson I Central Committee as the best surface ship in the Navy. Last year, It was again awarded to us.

How do we succeed in ensuring the stability of results of military labor? First of all, we are helped here by the leading experience in work in directions which determine success in the accomplishment of training-combat missions at a subdoctrinating the seamen, strengthening military discipline, and organizing of the seamen. This experience was amassed for five years and accumulated on long cruis: A everyday naval life.

The seaman hegin service by becoming acquainted with the ship's historical journal, each line of which preserves the valor and glory of preceding generations. It has become a rule that the following point is found without fail in the obligations of the officers and all seamen: to treasure the honor of the ship, to bear the name of Ochakovite high and proudly, and justify it by outstanding deeds and exemplary iscipline. "We are from the 'Ochakov'!"--say the seamen with pride. Profound

consciousness of their military duty to the motherland and love for the fleet and their own ship stimulate the men to pose lofty goals for themselves and to move persistently toward their attainment, not being satisfied with the small and the mediocre. I will present a typical example.

Captain-Lieutenant V. Golovko headed the missile-gunnery department (BCh-2). The commander of the ship had certain fears as to whether he would be able, like his predecessor, to destroy the target with the first missile and at maximum ranges. In talking with the commander, Viktor I movich said that he had dreamed of serving in such a famous crew, is proud of his lofty appointment, and will work intensively to justify confidence.

The officer's word does not diverge from leed. To those better traditions with which the subunit is so rich he introduced new ones. Here, in comparison with the very best indices of past years they reduced the time to prepare the batteries for action, became more closely krit crews, and the percentage of interchangeability was higher. This is the result of well-organized competition in taxas and norms. BCh-2 now occupies first place in the unit of surface ships. Officer communist Golovko and his subordinates do not intend to stop with what has been attained. The officer skill-fully directs the patriotic striving of the seamen to great the 26th CPSU Congress with excellent indices alone toward the improvement of the missilemen's skill and intensification of training.

Our pride in the "Ochakov" and concern for its honor are in high exactingness. Disgrace the honor of the ship and answer in full to the collective.

One day Senior Lieutenant V. Petrov violated military discipline on share. This alarmed the collective. The officer-Komsomol's inlinquency was considered at a session of the Komsomol committee. Petrov was properly reproached for the fact that he lid not display proper seal in his service and had weakened indoctrinational work in the subunit. A meeting of officers also gave an evaluation based on principle to Petrov's omissions. This became a serious lesson for the young officer.

To indoctrinate the seamen in traditions, we widely use the took about the "Ochakov" and meetings with former crew members who have passed through the school of life and tempering here and received orders for high command assignments.

The organization of service which is constantly in review also helps is to confirm the title of excellent ship from year to year. Carity and punctuality in accomplishing the faily schedule from reveille to recall, complete realization of the faily plans, instructive summing up of the results of the competition, strictness in evaluations—all this has become an inviolable rule on the only. Being guided by the instruction of Comrate L. I. Brethney which as expressed in a report at the June (1980) plenum of the CPSU Central Committee about the superstant to approach everything favorable in our work with care, we are leveling much attention to improving the organization of training and service on the unit of extended which has already been accumulated.

In the crew, for example, a system for the training of noty and watch officers has been clearly worker out. As a rule, each lieutenant who has arrived on our ship receives permission to go on duty in two months.

In light of the requirements of the CPSU Central Committee's decree, "On socialist competition for a worthy greeting for the 26th CPSU Congress," the crew weighed its capabilities in training and the competition. It turned out that by the Party Congress we can have 100 percent rated specialists on the ship, including 75 percent first- and second-class. It proved realistic to increase the number of masters of military affairs by five men.

We understand that it is necessary to apply maximum energy to capture such high positions. But we do not intend to work differently, either. Experience shows that it is namely the officers and warrant officers [michman] with a master's qualification who effectively use weapons in any situation and take from the equipment everything that it can give. For example, the chief of the crew of sonarmen, Warrant Officer L. Kharaim, who won the title of best specialist of the fleet three years in a row displayed high skill dozens of times unde ery difficult conditions. His classification of a contact at maximum ranges and L.s clear maintenance in the course of the attack contributed to the accomplishment of antisubmarine missions with high grades in considerable measure.

Great attention is devoted to the competition for tasks and norms. It has been calculated to the second where it is possible to reduce the time for each of the operations and, in the end, prepare the ship for action and a cruise more rapidly. Good results in the pre-congress competition are shown by the seamen of the excellent torpeds department [SCh-3] which is commanded by Senior Lieutenant A. Zenzerov. At the majority of battle stations here, the accomplishment of the standards has been brought to the technically possible norms. Forty percent of the seamen are mastering the equipment at adjacent stations by the opening of the 26th CPSU Congress.

Put, unfortunately, we also have shortcomings and unused capabilities. We see our omissions and will struggle against them with all resoluteness.

.. Secontly the former captain of the "Ochakov," Captain 2d Rank A. Ryzhenko, sent us a letter and was interested as to whether we are keeping the mark of the leading ship as we promised. We answered: we are keeping it, for the word of an Ochakovite is a firm word.

On A Missile Patrol Boat

Moscow KRASNAYA ZVEZDA in Pussian 13 Jul 80 p 1

'Article by Capt 3d Pank V. Baltak, Red Banner Pacific Fleet: "Leaving the Cyclone Behind"

The word "ryclope," short as a shot, immediately struck the eye of the commander of the missile patrol boat, Captain-Lieutenant S. Korolev, in the radio message which had just been received. Originating somewhere in the northern latitudes, the cyclone, judging from the report, was moving south swiftly, presumably to where the missile patrol boat men were to accomplish missile firing.

"For all I know, it will namper the attack," the officer thought for a while. "Although we will not surry with our conclusions. It is necessary to consider and estimate. In this situation, it will also be difficult or the 'enemy'."

The estimate showed: if we operate quickly, clearly, and smoothly, we can discover and destroy the carget prior to the deterioration of the weather when the sailing of a small ship will be made difficult if not impossible altogether. It is only necessary to tell the crew about the complication of the situation and to call on the seamen to operate boldly and resolutely. And Captain-Lieutenant Korolev invited the se retary of the party organization, the chief of the launch crew Warrant Officer [michman] N. Stoykov, to report to him. And the communists soon set out for the battle stations and conducted short talks there.

The commander of the missile carrier had confidence in his subordinates. This confidence was born and strengthened during routine, strained military lays. The crew worked with great enthusiasm at the base, demonstrating the ardent striving to greet the 26th CPSU Congress with new achievements in combat training. During pre-cruise preparations officer Korolev succeeded in concentrating the efforts of the communists and of the entire crew on the main thing--raising the tactical and special ability of the seamen and working out the norms under conditions close to tasse of actual combat. All the patrol boat men were admitted to the firings.

The unit staff officers assisted the commander in attaining the maximum intensity of the lessons. In particular, they prompted how to creatize the irill of the crews better. It was they who organized the exchange of leading experience between ships' crews. And when Warrant Officer 7 Yermishin's substituted to an to lag behind in skill, the staff's representatives recommended to Captain-leadenant Korolev that he send the warrant officer with seamen to the adjacent patrol toat where the engineering department is commanded by Senior Engineer-leadenant 7. Maints. This officer enjoys the authority of a genuine master of his trade and skillful methodologist in the unit and the department which he hears has the trade and skillful methodologist in the unit and the department which he hears has the trade and the trust in the fleet.

A temperation was conducted. Warrant officer farmboun's continuous were convinced that the standards could be exceeded considerably on the maximum possible could be taken from the equipment. They began to study and wars with consideration of their neighbors' leading experience. The situation in the study in the maximum. Pefore departing for the sea, the seamen pleaged to ensure the scallest accomplishment of missile firing. By tradition, this obligation was assured in the portrait gallery of famous patrol boat men from the times of the Frent Puriodic War.

... They arrived at the assigned ocean square in the Book the collect of the radar operator crew, Warrant Officer V. Galas', reported the telection of an "enemy" ship. Despite heavy jamming the radar operators tell recognized on the target which was located at maximum range.

It is time to shape the combat swirse. The infile it tax over was accomplished clearly. The engines began to operate at maximum revolutions powerfully and smoothly.

The commander of the patrol boat braced nimbels, and the face grew stern. Receiving the report of the missile's readiness for launch, he pressed the elastic button resolutely. A plume of fire struck the flash eliminator furiously. The missile rushed toward the target with a terrible roar, is also a minute of walting—and the joyous news: a direct bit! The crew of the outstanding patrol roat tenfirmed its high skill.

The weather worsened abruptly when the patrol boat was already on the approach to the base. The seamen succeeded in leaving the cyclone behind. And a band thundered on the pier as it greeted the masters of accurate missile firing.

Baltic Submarine Training

Moscow KRASNAYA ZVEZDA in Russian 27 Jul 80 p 1

[Article by Capt 3d Rank V. Koshcheyev, Twice Red Banner Baltic Fleet: "Primary Target"?

[Text] On bearing... noise of propellers!" The chief of the crew of sonarmen of the submarine "Il'yanovskiy Komsomolets," Warrant Officer [michman] V. Zheltov, reported this to the control room with a joyful voice, even with something like relief. The search for the target had already been long and intense. For several hours the submariner had to listen to a great number of the most varied noises of the depths. It seemed many times—vell, here is the "enemy." But in seconds Zheltov's well-trained ear caught barely noticeable signals indicating that the contact was false.

Of course, the success of the search did not depend on Zheltov alone. It also depended on the commanier of the submarine who thoroughly analyzed the tactical situation in the cruising area, and on the navigator, Senior Lieutenant A. Katser, who calculated the course of his ship and the "enemy's" ship. In truth, success depended on the ship's entire combat crew whose work was directed at these moments by the executive officer, Captain-Lieutenant S. Ivanov.

Ivanov became the exec not so long ago. And a fourth star just appeared on his shoulder boards. But the young officer's breast is already adorned with a small silver boat—the badge of commander's maturity, the badge which indicates that the office has the right to control a submarine independently. Ivanov has already had to enjoy this right many times.

Now this was not required. But even remaining at his place, the young officer strived to see a training battle deeply and comprehensively from the commander's point of view. He bent over a special plotting board where the situation was recreated from the reports of the sonarmen. He fell to thinking. Somehow, the "eneny" ship behaves strangely. A guess sudjenly arose: but perhaps, the problem is that this is not a single target but a formation of ships! Ivanov immediately reported his assumption to the commander. The latter modded his head approvingly: he has some to the same conclusion himself comewhat earlier after comparing data on the "enemy." The exer's report and the recommendations which were made right here by the navigator finally confirmed the commander's decision.

The submarine changes course in such a way as to create the best working conditions for the scharmen. And soon the master of combat qualifications, Warrant Officer Ehelter, resolved the last doubts: contact was established with a group target.

Now, when the "stemy's" cumping had been discovered, it became clear that the submariners' mission had become sharply more complicated. It was not enough simply to launch a strike, it must be inflicted with maximum effectiveness. This means that it is necessary to find and attack the primary target.

The complication of the situation did not catch the seamen unawares. They had gamed the most varied versions of the forthcoming training battle many times in base training rooms and on simulators during numerous drills, including this one. The submariners drilled intensively and reliability was achieved in each element of the crew. This is the custom on the "Ul'yanovskiy Komsomolets." It can be said that here they try to see the main goal before them daily and hourly—the high combat ability of the people and combat readiness of the ship. This is confirmed, in particular, by the fact that the number of masters is growing in the collective from year to year. This title is now borne by Engineer-Captain 3d Rank A. Strakhov, Warrant Officers N. Chernikov, V. Tsyplakov, and V. Puzanov, and others.

The very name of the submarine--"Ul'yanovskiy Komsomolets"--obliges the seamen to serve on it in an excellent manner and to be the right guides in the competition for a worthy greeting for the 26th CPSU Congress. The men are maintaining close ties with the workers of the city in which Vladimir Il'Ith Lenin was born. Envoys from Ul'yanovsk come to serve in the crew. And, as a rule, they set the tone in service. Here two of them distinguished themselves on this exercise--machinists Petty Officer 1st Class A. Svishchev and Petty Officer 2d Class A. Gorbunov.

The "enemy" became agitated, sensing that he had been proceed up in the sight by the submariners. He began to reorganize the formation and then the ships increased speed. But Zheltov had already determined the planter of the ships from the typical inflections of the noises. The situation also became planter in the control room. The course of each of the "enemy" ships was plearly marked on the plotting board. The seamen also calculated their speeds. The commander approved the target for the attack—the primary target in the formation.

By now, everything depended on speed and accuracy in the actions of the torpedomen. Here is when those very seconds which Warrant Officer Fidenko's subordinates had won from the standard proved useful.

The submarine lay on its torpedo attack course. The first torpedo was fired. A hit! The second torpedo also hit the target are at all

And after a while, the voice of the commanier stanies over the ceneral announcing system.

"Comrade submariners," he sail, "you all know that the time of the Jeth Party Congress we are to exchange reports with our pairwould be surface of the 'M'yanovskiy Instrument-Fuilding Plant. They will inform us of their projection successes and we will report on our achievements in combat training. Today, by excellent torpedo firing the crew has inscribed the first line in its pre-congress report. It is a matter of honor that other worthy lines about new military victories follow it."

Peffeling the "Inglanty"

Moscow KPASNAYA ZVF7.DA in Pussian 1 Tul = :

[Article by Capt 31 Rank S. Bystrav, in the ----- " [1-4]]

[Text] The steep side of the tanker "Senrikh Galaniv" in approaching slowly. The heaving lines flew from the deck of the large ACW [antisubmarine warfare] ship "Zhguchiy." The hawsers had already been handed over and the "Zhguchiy" in loing

pulled toward the tanker. Even a small swell becomes dangerous during such mooring at sea. The ships swing toward each other, the superstructures meet high above the water--and trouble cannot be avoided. But at the very last moment the pneumatic bumpers smoothly slow the meeting sides down and dampen the oscillations.

A hot tropical sun, the stillness of the air, the smoothness of the water—silence I paradise. However, the captain of the "Genrikh Gasanov," S. Osipov, requests that they feed out one more hawser from the "Zhguchiy": it cannot be excluded that a squall will swoop down by evening. It is hard to believe that the weather can change sharply with such cloudless calm. And really, the captain's voice reports this somehow prosaically. Nevertheless, the commander of the "Zhguchiy," Captain 2d Rank A. Kibkalo, follows the advice without delay: he had already heard about the local squalls....

This is what is accepted on long cruises: if a ship is standing at anchor somewhere and another of our ships is alongside, the commanders must meet. Both in order to pay their respects to each other at distant meridians and s mply to have a talk. But primarily, to exchange command experience. It only seems that the sea is the same everywhere. It is infinite, unique. And there are no limits in its knowledge.

The commander of the destroyer "Prozorlivyy," on whom the commander of the "Zhguchiy" also invited me to call, also mentioned local squalls first of all.

"I had climbed up to the bridge," related Captain 3d Rank Yu. Lyakin, "when a dark cloud was noticed on the horizon. Well, what about it, I think, it will approach and rinse us with a little fresh water. But in a half hour everything was whistling. And it grew dark. Most unpleasant—the complete suddenness of the squalls, especially night ones."

At JOO hours it was learned that the squall which were were now expecting had passed up by at a listance. The might promised to be calm. We moved over to the tanker "Genrikh basanov" and sat in the captain's cabin. Osipov and Kibalko discussed questions of the forthcoming joint work. Seamen played volleyball under the light of searchlights on the tanker's deck. The telephone suddenly rang shrilly. The tanker's raptain picked up the receiver and turned to us immediately:

' "quall!'

When we had leaped to the leck, a heavy rain was beating down as if from a fire noznia. The rangway between the sides was like a bridge suspended across a raging abyss. The wind attained a velocity of 25 meters per second. The covers on the '75 suchiy's" gun mounts fluttered violently and monstrously. The seamer fastened them with additional ropes beneath the torrential rain.

And the wind grew stronger and stronger. Lightning flashed brightly scattered, without thunder. Not lightning, but a blue glow.

When we has 'lly left the tanker, Captain Pd Rank A. Kibalko suggested that in case of danger we should quickly cast off the stern hawsers, turn the ship away from the tanker to the wind and casting off the bow lines, depart.

"Now we should stand together," S. Osipov objected. "For safety, the main thing is that the lines hold."

They stretched like string. And sang. They slackened unexpectly—and again stretched swiftly. Searchlights were directed at the hawsers. The line-handling crews which had taken cover on the forecastle and poop were ready to stand up for the ship at any instant. The lightning became more frequent, because of which the sea became green as in the daytime, and it seemed as if it was not light which illuminated the darkness but that narrow wisps of darkness had wedged themselves into the ghostly shimmering light. Now the sky was noisy with dull, continuous thunder.

The crew constantly heard the commander's voice--cheerful and calming:

"Thirteen minutes remain to the end of the squall

"The wind will begin to subside in six minutes...."

The commander intuitively fixed the squall's duration. But now this time was legitimized. Each person believed in it.

The danger transformed the people. Everyone was in full readiness for the most decisive actions. The seamen caught the commander's every word. On the very first signal, the ships engines could provide the required revolutions. Considering the situation which had developed, the navigator quickly made the necessary corrections to the possible maneuver schedule. The radar drew the unchanging picture of the harbor. This was calming.

But the commander of the ship had one more cause for concern. We were secured to the tanker when the commander's launch of the "Thguckiy" was afloat. There was no no place to raise it—the side was closed by the tanker. Toward evening, the commander sent the launch to the tanker from the leeward side, ordering the adoption of all me sures for additional safety. And here now, when everything around was in confusion, there, behind the tanker four seamen and a warrant officer (michman) are in the feather-like launch. True, Warrant Officer V. Klimov is a most experienced seaman. He had been in various messes and now reported the situation electly by radio. Just as the commander has assumed, the side of the "Jenrikh Gasanov" covered the launch reliably from the wind. There was a tiny calm there and, as formerly, the squall raged everywhere—a cluster of lightning, wind, and rain started for the shore by the ocean.

"Navigator, time?" the commander asked smoothly from the bridge.

The navigator reported, and Captain 2d Rank Kibhalo again announced to the crew:

"Seven minutes to the end of the squall, the wind is beginning to die down...."

And actually, the wind suddenly began to silende. It was already a caressing breeze three minutes before the designated time.

Everything calmed lown. Only the rain poured abundantly and, what is more, in departing a ball of celestial electricity continued to flash.

"Attention, all personnel!" the commander loudly announced over the general announcing system. "The squall has passed. Commanders of subunits organize baths for those who want to wash in the rain."

When at last the commander went to his cabin water poured from him in streams. We looked at the clock. The day had already ended. And you see, this day which had passed was the ship commander's birthday. He was "past" 35. On this occasion, the ocean presented him with a unique gift and acquainted him with a phenomenon which the officer had not yet encountered.

"And is it possible once more?" the tired but cheerful commander asked me.

Before departing for the sea, I wrote the words of a little song for the commander's coming birthday. The music was composed by his wife, Anna Georgiyevna, and Masha and Kolya, his children one year apart in age, sang it at the piano. This morning, Kibkalo heard it for the first time in the wardroom as he accepted the officers' congratulations.

I turned on the tape recorder. The commander, so wet, sat on a chair listening to the children's thin voices:

Be strong at sea, papa,
Be bold at sea, papa,
We await you at home with victory.
We are grandchildren of an admiral,
We are grandchildren of an admiral.
We are children of the commander of a ship....

Black Sea Fleet Aviation Training

Moscow KRASNAYA ZVEZDA in Russian 3 Jul 80 p 2

[Article by Col A. Fedorcy, military sniper-pilot, and Col I. Ivanov, honored military navigator of the USSR Red Banner Black Sea Fleet. "Who Should Be an Aerial Sniper"]

[Text] The men's flight training days are filled with high patriotic enthusiasm and a fervent striving to greet the 26th CPSU Congress with worthy deeds. Directing the increased activity of the personnel toward the struggle for the skillful mastery of equipment and weapons commanders and party organizations of our aviation subunits are persistently introducing the leading experience of Trst-class specialists and masters of combat employment into practice. This is one of the most important reserves for a further rise in compat readiness.

...A difficult tactical maneuver had been completed. The airplane had reached the line from which the crew was to launch a strike at a naval target. Behisi the wheel of the aircraft was Tolonel A. Chesnokov, an officer of the flight safety service. The mavigator, Lieutenant Colonel V. Velichutin, followed the target on the radar seepe and, at the necessary moment, he launched the rockets. They operated smoothly, with initiative. It could not be otherwise—for both are among the first of the Black Sea Fleet aviators to become specialists of the highest, sniper qualification. They coped with the mission in an excellent manner this time, too: as they say, the rocket hit the bullseye.

As a rule, all snipers of the fleet's aviation demonstrate high results stably from year to year in accomplishing missions in aerial reconnaissance and employing missiles, torpedoes, bombs, and other weapons. Pilots and navigators officers G. Tkhorzhevskiy, N. Dubenko, and D. Karmaza are genuine masters of combat employment. The most difficult missions are within their capabilities in any weather and tactical situation and during the day as well as night.

The persistent improvement of combat ability and exemplary accomplishment of flight missions by the military pilots (navigators)-snipers serves as a good example for young aerial fighters in their striving to attain the peaks of professional skill. And nevertheless, it is believed, not all reserves are used in training specialists of sniper qualifications. For the present, their ranks were replenished primarily from among the officers of the regimental command personnel. Meanwhile, the skill-ful mastery of the equipment and weapons entrusted to them is the most important mission of the flight crews in the detachments and squadrons, too. Just what is hampering the aerial fighters of the middle command element, so to say, in becoming snipers?

Just as in every difficult matter, it has its own psychological barrier here. "Will I be able to withstand the test?" some pilot or navigator wavers before joining in the competition for the right to receive the sniper's qualification. His doubts can be understood. For if he receives even one "four" on the examinations in the basic theoretical disciplines, he immediately drops from the circle of those as iring to be snipers. Only excellent grades go into the record. Bith requirements are also imposed on the personal level of piloting technique, air navigation, and combat employment. The average score for each of these types of training must be at least 4.6. And, naturally, considerable experience and actual flight training under conditions as close as possible to actual combat conditions are necessary to attain stability of high results.

Unquestionably, it is necessary also to consider the attitude of a person toward matters and how he copes with his service duties. Here it is appropriate to refer to the case of the helicopter pilot, Lieutenant Colonel V. Ivanov. He is one of the most experienced aerial fighters in the regiment and vis a sniper candidate. He accomplished the appropriate program and passed the examinations successfully. But then, being a flight operations officer he could not make a competent decision when a crew landed in a difficult situation while on a flight route. In this connection, the commander held up the recommendation of the officer or the awarding of the sniper's qualification.

And really, could the decision have been different. For a uniper must be not only a narrow specialist in his work. The leader in flying while, he is called upon to set an example in everything. Meanwhile, some people interpreted the officer's failure in their own may: if such an experienced aviator it is to master the sniper's position, then, they say, this is also inaccessible for all.

True, it is difficult to climb to the highest stage of combat skill. But, in considering this, one should both organize training clearly and conduct indoctrinational work with people more actively. For it is not by change that in those units and subunits where the movement for a growth in the number of unipers is illuminated by a political approach to the matter it acquires even a later innoctrinational meaning.

Of course, it is necessary to select sniper candidates even more carefully and to work with them in a well thought-out manner. To consider here not only quantitative, but also qualitative indices of flying time. The moral-psychological state of training of the aerial fighter who is capable of becoming a sniper requires special attention. An atmosphere of combat competition on lessons and drills and in the course of flights and exercises contributes to a great extent to raising volitional tempering and the professional skill of the aviators. For this purpose, the accomplishment of the most difficult missions should be assigned more boldly to candidate snipers and the exchange of leading experience should be practiced more widely.

But just what is noted in the training of snipers at times? The appropriate plan was drawn up in the unit and they limited themselves to this. The times for its realization are frequently not kept. Another matter, let us say, is raising the rating classification. They always ask about this. As regards the growth in sniper ability, these indices are considered no more than is completely necessary. Let us refer to the following fact. Major V. Mayorov is listed as a candidate sniper for the second year. Last year, he did not demonstrate special zeal in training and therefore he did not pass the examination. Now he is training again. What conclusion follows from this? A more demanding approach toward training sniper candidates is necessary. Unquestionably, all this is troublesome. But you see, the labor invested in this is paid back a hundred-fold.

Deserving of approval, in our view, is the practice of training snipers by crews where the pilot and the navigator go through the corresponding program in parallel. For otherwise, how can one count on maximum success in the accomplishment of an assignment for combat employment if, let us say, the aircraft commander has high qualifications and the navigator does not? For the launching of rockets or the dropping of bombs or torpedoes are a complished directly by the navigator. Although it should be noted here that he lo, even if he is a sniper, can be overtaken by failure if the pilot is poorly trained. Therefore, improvement of the combat skill of the leading specialists in the crew is also an exceptionally important matter. And consequently, the center of indoctrinational work should be shifted namely in the direction of the crew more boldly in the interests of raising the effectiveness and quality of accomplishment of combat-training missions.

Formerly we had an unofficial qualification commission with the headquarters of the fleet's aviation which monitored the training of the sniper candidates and provided conclusions on the quality of their training. Now this function has been assigned to officers of the higher echelon. Just what happens frequently? Having flaished training, the iniper candidates are now forced to wait for a long time until they take the examinations or intil a control check is conducted in flight for combat employment. Such delays, of course, slow down the matter.

But perhaps it makes sense to return to the former procedure for checking the skill level attained by the pilots and navigators. Moreover, the members of the unofficial qualifications commission with the fleet's a lation headquarters, as a rule, are better informed about the actual tactical flying ability of each sniper candidate as well as about his moral-political and psychological qualities. As regards an official commission, it is believed that its functions should include selective checking of the quality of training snipers and candidates for this highest flying title.

Experience convinces us that a growth in the skill of the acrial fighters proceeds in those military collectives where the training and industributional process is organized in an exemplary manner and individual work with people is conducted more actively. Wide publicity of the achievements of both the snipers and candidates for master of the highest qualification, organization of competition between them, a lively exchange of experience—in the end, all this is transformed into the most important quality indicator—the raising of combat readiness.

Training the Watch

Moscov KRASNAYA ZVEZDA in Russian 11 Jul 80 p 2

[Article by Sr Lt I. Anfert'yev: "Maneuver of the Last Moment"]

[Text] Lieutenant S. Fedorov passed the majority of the tests necessary to obtain permission to perform the duties of officer of the watch at the base. But the main tests fell to his lot at sea, during independent cruising Drills took place during the entire cruise in which he participated actively as the independent of the watch.

The concluding stage of the test took place in the cabin of the ship's commander.

"You know the rules for preventing collisions of vessels at sea and you maneuver reasonably. I will give you the last task," said the captain let rank. "If you accomplish it, I will sign the test sheet without wavering."

Red and blue pencils in the commander's hands which designate a surface ship and a submarine were converging slowly.

"A collision cannot be avoided. You are the officer of the watch and you do not succeed in reporting to the commander," the bright eyes of the captain lst rank searchingly follow the lieutenant's reaction. "Think, I give you two minutes. The time is less in an actual situation."

"There is no way out," Pedorov began and fell silent, noting the involuntary gesture of the commander which signifies disapproval.

During a year of service, this was only the second time that the young officer had caused such a reaction which the commander of the ship had directed toward him. It happened the first time almost immediately after appointment to his post.

Lieutenant Fedorov was appointed commander of the communication department—chief of the ship's electronics service. He had completed the higher naval electronics school with distinction but, becoming immersed in ship's life, the young officer understood that he was still very poorly prepared for such a difficult post. This stimulated him to persistent work. But sometimes he became so twisted that he wanted to break into a dozen parts—exactly is accordance with the number of official, unofficial, public, and other duties which at 'imes were not called for by any documents but were laid on the lieutenant's shoulders by service and life. At 21 years of age, Lieutenant Fedorov had to be the leader of a large military collective on the ship. The majority of the subordinates know their worth—they are highly rated specialists. Warrant Officer [michman] V. Mostovoy is worth much: a master of

military affairs, he enjoys the deserved fame as best signalman in the unit. In work a contingent, one does not get by without knowledge of military peder and psychology, without personal exemplariness in everything—in behavior, in crudition, and in training.

There were also quite unexpected difficulties. The commander of the ship ordered Lieutenant Pedorov to take over matters from his predecessor in strict accordance with the instructions. The officer who turned over the affairs at one time neglected the maintenance of documentation and now tried to exploit the lieutenant's inexperience.

"The first order of the commander is doubly a law for a subordinate," Pedorov said firmly and he stood his ground: the documentation was up-dated in accordance with the requirements of the instructions.

Success heartened the lieutenant. And really, interest arose on the part of his subordinates: they felt character. If any obstructions arose, using his position as subunit commander the lieutenant turned directly to the commander of the ship.

The captain 1st rank did not refuse assistance. But one day, Pedorov came with a question which was not worth being brought up to the level of discussion with the commander of the ship. That was when he noted disapproval for the first time.

"Will you mention the basic type of officer training?" the captain 1st rank answered the question with a question and, not waiting for an answer, he said as he cut him off: "Independent training, comrate lieutenant. And the first virtue in matters is independence. Think that over in your spare time."

"Yes sir, comrade captain 1st rank," said the lieutenant, blushing to the roots of his hair. "Will you permit me to go?"

At the first moment, Pedorov took offense. In fact, his subordinates who were to be engaged in the repair of equipment were unexpectedly placed on detail for other inportant work. And the time for putting the station into operation and the detail schedule were determined by the ship's commander. What is to be done? It seemed most natural to turn namely to him. But in fact, it turns out, he had to look for the solution independently.

And the solution was found. Consulting with Warrant Officer Mostovoy, the lieutenant attracted seamen of an allied specialty to work on the station who worked under the direction of experienced specialists. The station went into operation on time.

And the commander of the ship, nevertheless regretting his rather sharp answer, dropped in on the political officer:

"What do you think, Yevgeniy Dmitriyevich, will Pedorov interpret such lessons correctly?"

"It will make sense," the political officer answered confidently. "Fedorov undertook matters firmly, is studying people, and is tactful with them, but you can't call it softness; rather respect for a person shows through. He passed almost all the tests for independent control of a subunit. But he should be helped."

"That is correct," the commander concluded the conversation. "I will personally make an officer of the watch of him."

He made corrections in the order of taking the tests in the lieutenant's test sheet, explained requirements to the officer, and determined the times. Pedorov knew that usually the department commanders and chiefs of services give the majority of the tests to the candidate officers of the watch. Seeing his test sheet, he did not believe his eyes: "commander of the ship" was placed in each box of the column "examiner" by the captain 1st rank's hand.

The special attention of the commander required him to work as fully as possible, especially since the lesson on independence was well remembered. Lieutenant Pedorov applied himself to the instructions and documents and studied the ship in detail. And already on the first departure to sea, in performing the duties of understudy officer of the watch, he had no reproofs.

In accomplishing a combat-training mission, a submarine surfaced at the assigned point. Relieved of watch, Pedorov did not go to rest as usual but set off for the radio room. The time for a communication session was approaching, and the officer considered it his duty to see to the readiness of the equipment ahead of time.

"Request permission to transmit a signal," Warrant Officer Mostovoy, having a excellent conception of the session's importance, reported readiness a good 10 seconds earlier.

The ship's commander, observing the needle of a stopwatch, waited the prescribed time and permitted going on the air.

"Signal transmitted, I await receipt!"

Warrant Officer V. Mostovoy renewed the transmission twice but no confirmation ("receipt" in the terminology of the signalmen) arrived.

"Lieutenant Fedorov is to report on the possible reasons for the lack of communication," the order of the ship's commander arrived from the plotting room.

Sergey glanced at his watch: "It is noon now. If the sun is shining, the ionosphere will exert increased resistance to the passage of a signal."

"Request permission to go on the air on another frequency!"

The decision which was adopted proved to be correct. The radio-telegrapher on watch soon received a receipt.

On the eve of the next departure for sea, Pedorov almost had a "misfire." According to the reports of the specialists, the equipment was operating in good working order, but the officer decided to be personally satisfied before reporting readiness to the ship's commander. After only several minutes his subordinates understood that their chief had proceeded correctly: one of the blocks of the station's amplifier was not operating.

Opening out the station's schematic diagram, they began to signal test the electrical circuits in sequence and they saw that they do not conform to the allotted time. They did not want to think of the consequences.

The commander of one of the subunits walked along the narrow passageway and breathed heavily: "Here's bad luck, the coupling on the pump drive must be changed at once...."

"It should be my concern," Sergey Fedorov thought, sensing a chill in his chest. "Through my fault in general the departure may be delayed...."

His glance stopped on one of the units for connecting the circuit, and then he compared the number of solderings on the instrument plate. One terminal was missing. Evidently, at the last moment, it came off and the entire block malfunctioned. It was a matter of a minute to eliminate the trouble.

Convinced of the station's normal operation, the lieutenant left the radio room carefully. He remembered the commander's words about independence. Now they appeared to be much more correct.

... And here now, when almost all the tests are behind him the commander will assign a grade for an entire year's work depending on a single answer!

The captain 1st rank took his glance from the face of his wrist watch:

"Time is up. Report your decision, comrade officer of the watch."

"Extreme circumstances require extreme decisions," Lieutenant Fedorov began "The collision cannot be avoided. In that case, my goal is to suffer the least losses. I would proceed in the following manner...."

The blue pencil, which designates the submarine, slowly buried its point in the "side" of the red one at an acute angle.

"Explain your decision."

"The blow will be glancing. In my opinion, this is all that can be done. A so-called 'maneuver of the last moment'."

"Correct," the commander smiled with restraint. "I hope that you never have the occasion to employ it in practice in life."

And he signed the test sheet.

Need for Metrologists Stressed

Moscov KRASNAYA ZVEZDA in Russian 10 Jul 80 p 1

[Article by Capt 1st Rank N. Remizov: "Custodians of Accuracy"]

[Text] The ships which had returned from an exercise had just moored at the pier when Warrant Officer [michman] N. Solomin and his assistants set off for one of them

with a requisition. It was evident from the way the seamen smiled in a friendly manner as they firmly shook hands with the specialists who arrived that the metrologists onjuy more than formal recognition here. But you see, it was not always like this....

Warrant Officer Solomin remembers as if it was today his first arrival at a ship as a metrologist. He had sailed his period of compulsory military service as a seamen and then decided to link his fate with the fleet forever. He underwent the appropriate training, and here he was again on the deck, but this time as the representative of what was then a new service—military metrology. "It goes without saying that he almost lost heart from the first meeting."

"We are completely worn out without you," some of the ship's specialists waved him away with annoyance, "here we are repairing the turbine, taking on fuel, and preparing for a cruise, and you distract us."

And one gunnery officer, speaking in a fit of temper, said quite foolishly: I shoot from guns, not from instruments. As if he himself did not know that now a gun without accurate instruments is no longer a gun!

Metrology is a young science. At that time, not everyone understood what it provides.

On one of the ships, the strange "behavior" of a turbine which could not be explained by instruments put everyone on guard. Metrologists headed by Lieutenant Colonel (retired) Sobolevskiy thoroughly checked the instrumentation and found a defect in it which served as the reason for the undiscovered emergence of the turbine beyond the limits of the assigned regime. A similar group of instruments was also checked on neighboring ships, forestalling possible unpleasantness. And it became clear to the keepers of the equipment that it is better to put the instruments in order and to check them in time, especially the automatic temperature signalling, than to repair the entire turbine once again which is not so easily done.

The reason for the snag in communications which occurred at sea on one of the patrol boats also proved to be an instrument which falsely showed the satisfactory condition of an apparatus which was actually out of alignment. Another time, a rader was tuned on a ship using an instrument which did not possess the necessary accuracy and the base netrologists forestalled the possible consequences of this oversight by inspecting the ship prior to a long cruise. Otherwise, the target detection range could have been reduced.

The authority of the metrologists and confidence in them grew with each such incident. The ships' specialists turned more and more often for assistance to the "custodians of accuracy," as their seaman friends called the metrologists. One day the commander of a landing ship made a request: the engineer was temporarily absent, there is no one who can prepare the requisition competently, honestly speaking the record has been slightly neglected and. I really can't get along without you. Boris Wasil'yevich Sobolevskiy and Warrant Officer Solomin disclosed and studied all instruments directly on the ship, helped to straighten out the records, and assisted in turning the instruments in to the laboratory.

The metrologists' concerns increased more and more. They carried instruments to the laboratory for a check from the harbor and laboratory specialists hurried to the

ships. Clear schedules for the conduct of necessary work were drawn up. But life is life; it introduces corrections in what would appear to be the best plans.

For example, at times long cruises are planned suddenly. In such cases, regardless of the times of the last instrument check the metrologists perform a new one—comprehensive and integrated. They work, ignoring days off and holidays. And really, they react immediately to any other urgent requests. Always ready to come to the aid of ships' specialists, the metrologists do not forget about demandingness either. Somewhere requisitions were not submitted in time, not all instruments were submitted 100 percent for a check, those which were supposed to be turned in to the laborator, were not delivered on time—they are not left alone. In short, they are inculcating metrological style and discipline everywhere....

And today, here are the laboratory specialists on board the BPK [large antisubmarine vessel] "Obraztsovyy." A brief conference, and the command resounds throughout the ship: "Turn over the pressure gages for a check." In several minutes, seamen with instruments in their hands set off for the station for control of the bow engine. Here, using a press and standard pressure gage brought from the laboratory, the specialists were engaged in the scrupulous adjustment of heat-engineering instruments, recording the results in accordance with the established form. A stamp is placed on each pressure gage checked. One of the many difficult days of the military metrologists had begun.

Their work is valued at its true worth by the command. This is shown by the certificates signed by the commander in chief of the navy, the deputy fleet commander, and the chief of the naval garrison which are hung in a prominent place in the laboratory. The military collective where the commander is Engineer-Captain 3d Rank V. Proskuryakov is the leading metrological subunit in the fleet not only for status, but also for attitude toward matters.

The metrologists have planned new positions in the competition for a worthy greeting for the 26th Party Congress.

Warrant Officer Assignments

Moscov KRASNAYA ZVEZDA in Russian 24 Jul 80 p 2

[Article by Capt 1st Rank A. Shikov: "The Warrant Officer Makes a Decision"]

[Text] The ocean was rough. This was felt even here, submerged, where we had conducted observation of various types of "enemy" forces for several hours. We faced the task of accumulating information on the maneuvering of the opposing side's ships, determining the elements of their movement, and working out the classification of the targets.

On the whole, usual work. The difficulty was not to lose secrecy of actions. Here, success depended greatly on the sonarmen.

The sonarman on watch conducted observation of the "enemy" surface ships. Suddenly, he reported on new, thus far unclear noise, presumably of biological origin. There was nothing special in this. Biological "impregnations" in the music of the ocean depths often complicate combat work. Sometimes, insufficiently experienced

specialists take the noise of sea inhabitants for the noise of a submarine. But, we will agree, the reverse case is much wors? Just what did the ocean prepare now?

The assumption of the sonarman on watch caused almost no doubts. Nevertheless, the officer of the watch organized a unique council. A conclusion was drawn after repeated listening to the noise--"biology is playing pranks."

Up to this moment, the best specialist in the unit, Warrant Officer [michman] A. Tankovskiy, did not take part in the discussion. He had recently been relieved from a difficult watch and they did not want to disturb him. But the situation required complete clarity. Warrant Officer Yankovskiy occupied the operator's place—and just in time! He succeeded in distinguishing a barely audible sound which is characteristic of a submarine from the chaos of noise of biological origin. Evidently, the "enemy" was counting on a surprise attack under the cover of biological noise. But the filigree skill of Warrant Officer Yankovskiy provided the advantage for our ship.

It remains to be added that the chief of the electronics department found not one mistake in the warrant officer's actions. Their opinions coincided in evaluating all the nuances of the situation. Would it appear that there is anything special in this? But if we glance at the episode of the exercise on a larger scale and more broadly, we see in it confirmation of the deep meaning of the requirements in the guidance documents: the warrant officer is the first assistant to the officer and must be able to replace him in the majority of situations.

If each varrant officer is able to replace his immediate thief because of circumstances which have developed by virtue of his level of trofessional training and his ability to organize the training and indoctrinational process and socialist competition among his subordinates, we can be calm concerning affairs in the subunit.

Warrant Officers A. Yankovskiy and Ye. Stafeyev meet such strict criteria in this crew and several more names can be mentioned. But they are fever than we would like.

Where and in which subunits are there more highly trained warrant officers and why? These questions are answered in the crew without vacillating: in the engineering department and electronics service. This is because officers P. Belyayev, V. Buzayev, and V. Filatikov work with the warrant officers in a well thought out and systematic manner, realizing the special role of this category of military seamen. Competition has been organized among the warrant officers here to receive permission to perform the duties for a post one step higher than the one occupied. Strict monitoring of the accomplishment of obligations exists. Special attention is devoted to the plans for training masters of military affairs.

By the way, the flag specialists render great assistance to subunit commanders in training highest-class submariners. Concern for reserves is also present: technicians and senior specialists are pulled up to the level of crew chiefs and are trained for their substitution in combat. This echeloning creates a reserve of strength in the departments which is sufficient to withstand the most difficult tests by the ocean.

I will not be unsubstantiated. On the concluding stage of an ocean cruise, the operating conditions of one of the auxiliary mechanisms were disrupted in the engineering department department. What was to be done? The opinion was expressed that it is not worthwhile hurrying with the adjustment. First, because such work

requires plant conditions, and second because this mechanism was the back-up for the main one which was operating with complete reliability. Reference was also made to the crev's fatigue.

Many agreed with this opinion, but only the chief of the damage-control specialist team did not (the mechanism was under his direction). "We will cope as well as the plant workers," he said to the engineer officer. "And the fact that they are a little tired is a trifle, it's no trouble, we'll hold up." And they coped indeed. The brigade headed by the warrant officer worked for almost two days and the work was performed with high quality. The technical system again received its designed reliability.

The experience of the leading officer-indoctrinators is also propagandized in the crew. For example, reports on the work of communists Engineer-Captain 24 Rank P. Bels ayev, Engineer-Captain 3d Rank V. Buzayev, and Captain-Lieutenant V. Filatikov with the warrant officer personnel were heard in the party bureau. Noting the fe orable aspects in their experience, the bureau at the same time recommended to the communists that they not rest content with what has been achieved, proceed arther and achieve more. There are unused reserves in the strongest subunits.

This pertains first of all to the tactical training of the warrant officers. For the present, the warrant officers who are members of the ship's combat section appear most fortunate. But you see, in principle it is important for each warrant officer to master certain knowledge of the tactics of sea battle, primarily as applicable to his own ship.

In essence, the warrant officers should master at the officers' level skills in organizing the struggle for the survivability of equipment at the battle stations and should acquire the ability to lead the compartment damage control parties. The struggle to preserve the most important tactical quality of a submarine-secrecy-also requires the most active participation of the warrant officers. Just as the officers, they can conduct a rationalizer's search widely to reduce the noisiness of the mechanisms, the time that the ship is at periscope depth, and so forth. Now, when the competition for a worthy greeting for the 26th CPSU Congress is gathering strength on the ship, the enthusiasm of the warrant officers in technical creativity and in all training is growing from day to day, which unquestionably affects the raising of their qualifications.

And the last thing which I should like to discuss. The service status of the majority of the warrant officers is such that not only their training, but also their personal behavior affects matters in the subunit.

In this connection, the following example is not without interest in my view. Warrant Officer V. Munkoyev has served on the ship as a crew chief for many years. He has achieved notable successes in mastering a specialty. His crew led in socialist competition for a long time. But it continued in this way until the warrant officer committed a serious disciplinary misdemeanor and soon repeated it. The crew chief's authority was undermined in the eyes of his subordinates. This, of course, could not fail to affect the general course of affairs.

Replacements reach the ship from the warrant officer schools. The absolute majority of them are disciplined seamen with good theoretical training. But it should be

remembered that they become genuine specialists and reliable assistants to the officers directly at the battle stations, on difficult ocean cruises. The optimum conditions for this should be created on the ships.

Pedagogy and Psychology

Moscow KRASNAYA ZVEZDA in Russian 1 Jul 80 p 2

[Article by Capt 1st Rank Yu. Vedernikov, staff officer: "Ocean Maximum"]

[Text] During a long cruise, a conflict situation developed in the department commanded by Captain-Lieutenant V. Butorin. Without considering the dignity of his subordinates, the officer issued reprimands primarily in a sharp form, and could not evaluate his actions self-critically, blaming the personnel for mistakes. The commander's nervousness put the subunit in a fever and had a negative effect on the mood of the people and the quality of the watch.

Why did this happen? On the whole, Butorin's engineer qualities caused no unfavorable criticism from me, at that time commander of the ship. But the officer worked clumsily with people and was burdened by indoctrinational duties. Before the start of the endurance cruise the candidacy of Butorin, just as of all other crew members, was discussed couprehensively. There was the thought—should Butorin's replacement be requested? I consulted with the deputy for political affairs and the secretary of the party organization; the common opinion was—not to make the replacement, but, on the cruise, to maintain a special check on the subunit and help Butorin to get rid of his shortcomings. We adhered to this line as far as possible.

During recent decades, long cruises of ships have become a regular phenomenon in the life of the fleet, but they could not and cannot become a regular phenomenon in the life of a navy man. Whatever experience he may possess, a cruise which lasts for months requires the maximum straining of physical and moral strength and subjects the human mind to extreme loads. Not everyone stably withstands the burden of a long separation from home and not all crew members prove to be psychologically compatible during long and unavoidable contact, when a compartment of several square meters becomes the only place for a person to stay for long weeks. Not everyone is ready for the actual, at times harsh difficulties of sea service. In the base, many problems are lifted because people have normal rest, are in a customary situation, and have constant contact with relatives and near ones. There are no such factors at sea, and their absence requires compensation.... But how?

In order not to conduct an abstract conversation let us examine one incident where serious friction arose between Captain-Lieutenant Butorin and Warrant Officer [michman] 3. Khusnutdinov. It happened that the equipment which had been prepared for operation turned out not to be tuned for the proper regime. Who was guilty? The warrant officer had prepared the equipment and an officer had checked it. Each one asserts excitedly that the error is a matter of the other's hands. In the base, passions would have cooled quickly. But here—not without the influence of psychological fatigue—the matter reached stormy explanations and then, reports through channels. And the people are to stand several dozen more watches in the ocean and the watch must be reliable.

Listening to the officer-commutat at a party meeting assisted as a measure of operational influence. They did not permit the conversation to be diverted to a channel of debates, fruitless in this case, about which knob was twisted but they conducted talk about the main thing. About the work style of communist Butorin, his attitude toward assignments, personal example, self-criticism, and about the shortage of a favorable microclimate in the subunit. Listening to his comrades, Butorin evidently suffered through much and understood much. In any case, he managed to master himself in some things, which helped the subunit as a whole to accomplish the tasks on the long cruise successfully.

If we take the problem of creating a microclimate in the collective broadly, the discussion should concern the ability of the ship's commander and his assistants to maintain a proper attitude at the maximum for the duration of the entire cruise with the active role of the party organization. The attitude at the maximum in everything—in the quality of accomplishing tasks, in the clarity of the order and organization of service, and in the clarity and strength of commadely mutual relations between people. It is impossible to attain this without consideration and the creative applications of the recommendations of military pedagogy and psychology just as commanders work is impossible without consideration of the collective and individual psychology of subordinates.

What regularities does the commander encounter? When the time of departure becomes known the crew, figuratively speaking, is transformed. Each seaman strives to prepare his area of responsibility for the cruise in an exemplary manner and to show his worth on check inspections. At this stage, command concerns are reduced to the most effective organization of pre-cruise preparations, the clear assignment of tasks to each subunit, and checking execution, and only in exceptional cases is there a need for isolated replacements of seamen.

On a cruise, enthusiasm and an emotional upsurge are especially noticeable during the first weeks. The experienced commander does not let slip the possibility for the ideal working out of actions by the crew in accordance with all types of ship schedules, for organizing the competition of combat reliefs, "polishing" the interaction of the plotting room with the combat crews, and looking closely at people in a cruise situation. It happens, however, that individual young commanders, in trying to bring the combat readiness of the crew to the maximum as quickly as possible, overdo it with training loads. This is hardly far-seeing, especially when drills are conducted frequently but uniformly, monotonously, and without elements of the new.

The next phase sets in sooner or later, but it inevitably sets in. The emotional enthusiasm passed and the cruise is perceived as difficult hum-drum work. Even the tone of the reports to the plotting room changes. Questions of rest and living conditions become aggravated. It is important not to let this moment slip, not to brush "unimportant" questions aside. It is always more difficult to correct an error than prevent it.

Subsequently, the collective attitude levels off and brief fluctuations are connected primarily with success in accomplishing specific missions of the cruise. At the same time, contrasts in the attitude of individual crew members may be considerable.

The most unique and difficult stage of the cruise is the time segment from the moment of receipt of the order to return until the ship's arrival at the base. An emotional

upsurge is again present. Waiting to meet the shore becomes the leit-motif of the people's psychological condition. It happens that experience acquired on the cruise engenders an exaggerated notion of his skill in individual seamen and at times leads to a loss of vigilance on watch. The negligence of one specialist can cancel the crew's tremendous labor and deprive it of success.

The scheme which has been presented, of course, does not exhaust all the variants which a lively life offers but, as a whole, I judge from my own almost 20 years of experience as a submariner that it can serve as a model.

In comparison with other ships, a diesel submarine is an extremely unique world. The general problems of naval psychology are manifested here in specific forms and with special acuteness. The guarantee of overcoming them successfully is instilling in the seamen a deep love for the socialist motherland, devotion to the cause of the party, and an understanding of the special significance of our submarine service. A vast tested arsenal of forms and methods for rallying crevs into harmonious combat collectives which are capable of overcoming any difficulties and tests exists. It seems to me that the essence of the question consists not so much in having the commanders looking for something unusually new as applying work forms which have justified themselves creatively and intelligently.

I know from personal experience: it is useful to assign a specific task to each officer and warrant officer for the entire period of the cruise. On the cruise which was discussed above, Captain 3d Rank A. Shelepov and Senior Lieutenant V. Lisaf'yev prepared to receive permission and the right to control a ship independently. The remaining officers mastered duties a step higher than the post occupied. The work proceeded in an atmosphere of active competition. The greatest successes were attained by Captain-Lieutenant V. Kruchinin, Senior Lieutenant V. Perkov, and Engineer-Lieutenant N. Opimakh. Two young officers were permitted to stand underway watch independently.

The incident with Captain-Lieutenant Butorin directed us toward the thought of conducting a lesson cycle for subunit commanders on military pedagogy and psychology in the course of which stress was placed on an analysis of the actual state of affairs in each subunit and working out specific recommendations.

Contests for the best battle station, compartment, or damage-control party, for the title of best in a specialty, and a specialty and a station for the right to be called the best combat relief attract the seamen and provide a good incentive in work and excellent psychological relief.

It is worth speaking especially about the organization of rest. This is a question of primary importance and acuteness. Here, use should be made of the slightest opportunity to remove psychological overloads without reducing leisure time to radio concerts and watching motion pictures alone. Festivals, amateur art activities, literary quiz games, and poetry soirces excite people well, discovering many unexpected talents in them.

And the last question in order but not in importance concerns the commander's self-discipline. The style of his actions and his entire behavior set the tone for relations in the crew. The commander's errors and weaknesses, excusable in some situations can underwine respect for him in extreme situations and create a difficult

psychological atmosphere in the subunits. However nervous and difficult the situa - tion may be, the commander of a ship does not have the right to give vent to frustration, cannot dress people down, cannot permit conversations in crude form, and cannot permit unobjectivity in evaluations.

No long cruise ends for the seaman immediately upon return to base. For a long time, the memory will still take you back to the ocean. And now and then you mentally begin to "troop the line," peering at the faces.... It was necessary to take something to heart on the cruise, and someone gave you support at a difficult moment. Someone functioned better, someone worse, and each one displayed his character. But if, on the whole, you conclude this "trooping" with the feeling that you would again depart on a cruise for months with these people, without a single exception, it means that the ocean maximum has been taken.

But there are already new people in the crew.

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CSO: 1801

STRATEGIC ROCKET PORCES: TRAINING AND RELATED ACTIVITIES

Sergeant Training Stressed

Moscow KRASNAYA ZVEZDA in Russian 30 Jul 80 p 2

[Article by Lt Gen V. Mitropov, first deputy chief, Political Directorate, Strategic Missile Forces: "The Authority of the Junior Commander"]

[Text] As in the other branches of the armed forces, the strategic missile forces are continually broadening their preparations for the upcoming 26th CPSU Congress. Commanders, political workers, and party and Komsomol organizations are directing the growing political and service activities of the missilemen toward complete, high-quality fulfillment of training plans, programs, and competition pledges.

The tasks facing the troops require improvement of the working style of commanders, political workers, engineers, and technicians.

Sergeants make up the largest detachment at the command level. They are a dependable support to officers and warrant officers in the training of the common soldier and in forming his high moral, political, combat, and psychological qualities.

Experience persuades us that the success and authority enjoyed by a sergeant, as well as by any other commander, would be unimaginable without his capability for firmly guiding the subordinates and for demanding faultless and precise compliance with the order and rules of military service. Enlisted men will truly respect their detachment commander and unite about him into a single collective only when they see that he is a fully trained military specialist, a self-confident, willful person, and a senior commade with firm ideological convictions, service experience, high general culture, and intolerance of shortcomings.

Life persuades us at every step that if commanders, political workers, and party and Komsomol organizations constantly show concern for the ideological and political training of sergeants, and if they arm them with command and teaching skills, this has a favorable influence on the combat readiness of the subunits and units, on military discipline, and on the life of the entire collective. Let me cite the experience of a unit commanded by Lieutenant Colonel M. Kolosov. It has held onto its "outstanding" title for 8 years in a row, and it has been awarded the Banner of the USSR Minister of Defense for bravery and military valor. The fact that thoughtful, concrete, purposeful work is being conducted here to indoctrinate

the junior commanders played a major role in these successes. Attention is focused mainly on teaching junior commanders right during the course of drills, training sessions, exercises, and combat duty, using the practical experience of the best sergeants who have achieved high results in maintaining strict order and in unifying the collectives of their subunits. The party and Komsomol organizations play the most active role in the work with sergeants.

Unfortunately there are also units and subunits in which shortcomings and mistakes in the training and indoctrination of sergeants and in the quidance afforded to them have not yet been corrected. The problem usually manifests itself as low exactingness toward junior commanders, at poor methodological assistance to them, and as absence of constant concern for strengthening their authority.

Take as an example the subunit commanded by Captain V. Sukhorukov. The summer combat training period began on the wrong foot. Cartain cases of improper mutual relationships were revealed in the collective. Captain Sukhorukhov is openly troubled by the poor training and the insufficiently high authority of his closest helpers—the sergeants who, he says, had never acquired solid habits of organizational and indoctrination work with subordinates while in training subunits.

Naturally those promoted to the rank of sergeant after graduating from their training course still lack practical habits. But after all, experience cannot be acquired in any way other than by working with people, constantly feeling the attention and help of senior comrades.

As we can see, Captain Sukhorukov forgot this. When the sergeants joined the subunit a few general, "required" measures were implemented in their behalf, and then they were forgotten. Then the very first mistake made by the junior commanders caused displeasure in Captain Sukhorukov. Both the commander himself and other officers and warrant officers all began taking on more and more of their functions, usurping their authority.

We would hope that senior chiefs will help Officer Sukhorukov alter his work style and correct his shortcomings, so that the subunit would join the leaders. But the fact itself that this incident of a red cannot but rivet our attention on the problems associated with strengthering the authority of junior commanders and raising their role in the life o. I subunits and units.

As we know, in comparison with officers the sergeants are less prepared in pedagogical respects, and they will not always be able to find the correct approach with people, to correctly determine the line of their behavior in different situations on and off the job, and to effectively exercise their disciplinary rights. And if commanders, political workers, and active party and "omsomed members fail to consider these factors, or promptly reveal the sources of difficulties and mistakes experienced in the work of sergeants, various misunderstandings, and sometimes even violations of the manuals, will arise in the mutual relationships between junior commanders and the rank-and-file.

Did they know in one certain unit u.at certain junior commanders were not displaying the exactingness toward subordinates required by the manuals? Political worker Officer P. Semenov frankly admits: They did. But they condoned the situation.

They believed that it would not be long before the individuals causing the problems would finish serving their time, and then it would be easier for the young sergeants to assert their authority. And so it was "in the name of asserting the authority" of the sergeants that the appearance was given that their at first glance petty violations of uniform regulations and the order of the day were not noticed. After this, how can we be amazed if certain soldiers begin to think: "If the sergeant can, then why can't I?"

The authority of the sergeant perhaps depends most of all on personal example. Subordinates learn from their immediate supervisor not only in drills and training sessions. The sergeant's behavior and all of his service always play a part in indoctrination. Wherever this is understood well and wherever sergeants serve as an example for subordinates in all situations and at all times, adherence to the regulations is stronger.

One certain unit has held onto the "outstanding" title for 6 years in a row. There are many CPSU members and candidates among the junior commanders. What is worthy of note is that they were recommended for party membership not only by communists of the subunits in which they served, but also by the unit commander, his deputies, party bureau secretary Officer M. Kondrat'yev, and members of the party bureau. This is an indication that they have a good knowledge of the official and moral-political qualities of the jurior commanders, and that they work with them constantly.

For a while after being assigned to him post, subunit commander Senior Lieutenant N. Shevchenko experienced difficulties in connection with the fact that the experienced sergeants had been retired into the reserves, and they were replaced by young sergeants. He could think of nothing better to do than artificially "inflate" the authority of some of the junior commanders.

It stands to reason that the unit commander strictly punished Lieutenant Shevchenko for his mistakes. The party bureau listened to Communist Shevchenko's report at one of its meetings. Not only was he subjected to criticism, but also concrete recommendations on how to improve his indoctrination work with his closest assistants were suggested.

Officers A. Naydenov and A. Solov'Yev, members of the party bureau and experienced teachers and indoctrinators, were ordered to work individually with Shevchenko. They demonstrated through concrete examples that his pethods of working with sergeants were, to put it mildly, far from perfect.

In the course of their work in the subunit the party bureau members acquainted themselves closely with the junior commanders and offered help or advice to them. The commander and other officers and warrant officers of the subunit improved their work with them. And this had a tangible effect on the work.

Experience persuades us quite obviously that help to the junior commanders can be truly effective if it does not deteriorate into patronage. Whenever it does, it promotes poor work, deprives the individual of his independence and his confidence in his strengths, and nurtures parasitism.

In one subunit experienced junior commanders were assigned to sergeants just arriving from the training subunit. These unit commanders essentially did everything for them. This could only do harm to the common good. Perhaps they were a little late in starting, but the subunit finally discovered the problem and began helping the sergeants to acquire the experience of indoctrination work with people in a different way, without extensive patronage. Haturally, certain mistakes were made. But the sergeants were the source of much happiness later on! Having tested themselves as indoctrinators, they became true helpers of their commanders and political workers.

Some officers are more interested in the immediate results of the junior commanders. Moreover they do not attach much significance to how the particular results are achieved. As an example after a crew achieves its first good results, the surgeant is immediately showered with praise: He's a good commander, he's achieved good scores in training. But the relationship existing between what at first glance appeared to be good scores and the working, moral, and political qualities of the crew commander is far from always so obvious and direct.

Officers of the political directorate of the missile forces visited a training subunit commanded by Officer A. Kanayev. During meetings and discussions with the soldiers it was revealed that one of the sergeants had a prejudicial attitude toward some subordinates. When officer Kanayev and Captain N. Kovtun, the subunit deputy commander for political affairs, learned of the target of this prejudice, they were amased: "He's one of our best sergeants, and the crew he has is among the leaders!"

Further inspection, however, revealed certain facts. The sergeant did not always exercise his rights competently: He "failed" to notice obvious disciplinary violations by some subordinates, and he was extensively harsh in relation to others for the same violations.

Such mistakes do sometimes occur. But what is amazing in this case is that the officers from the political directorate were the first to learn of their existence, and not the subunit commander or his deputy for political affairs. And the reason for this was their laxity resulting from the crew's outwardly "favorable" performance.

Officers Kanayev and Kovtun were not lacking in experience and knowledge. But they were "let down" by their indifference, by lack of objectivity and adherence to principles in their evaluation of achievements. This is impermissible in all cases, but it is even more impermissible when the evaluations made pertain to mutual relationships among people and to the moral-political climate in the military collective.

Indoctrination of junior commanders is a laborious and complex process. There are no ready-made recipes for all cases of life in this regard, and there can be none. Competent utilization of forms and methods of work that have been tested by practice, and of the initiative and creativity of commanders, political workers, and party and Komsomol organizations is a dependable foundation for success.

Training Results Reviewed

Moscow KRASNAYA FVEEDA in Russian 18 Oct 80 p 2

[Article by Lt Col M. Kolosov, "The Main Reserve"]

(Text) The formation froze to attention on the drill pad. The order to begin combat duty was declared. The band played the USER National Anthem. And then the missilemen left for their combat posts to the solemn cadence of a march.

It did not seem so long ago that in the anxious moments of the beginning of the training year, just before beginning combat duty, a nagging thought forced its way into the consciousness: What will the new year be like? Days filled with hard work turned into weeks, the weeks turned into months, and soon it was time to summarize the year's results. To be brief, we can say that all of the plans were fulfilled. But we should necessarily add to this that the successes were achieved owing to the selfless, creative labor and initiative of every missileman. News that the 26th CPSU Congress was to be convened elicited a special patriotic uplift among our soldiers, and they actively joined the socialist competition for an honorable welcome to the congress.

Combat readiness is the sum of many components. But all components in a sense emanate from the same point. This point of reckening is the people, highly conscious, fully developed people with remarkable moral-combat and spiritual qualities. Subunit commanders, the political workers, the staff, and the party and Romsomol organizations direct their efforts at maintaining a high fighting spirit in the collective, and keeping the people spiritually uplifted in study, in labor, and in service. It is our goal to have no indifferent people here, to have each person feel a stake in the common cause and keep this thought in mind: In the end, the overall success depends personally upon the individual, upon his initiative and diligence.

Alert combat duty is the main rule of the unit's personnel. The entire rhythm of study, service, and rest of the soldiers is subordinated to this mission. Keeping the watch at the missile consoles with nothing worse than an "outstanding" grade--not that long ago this was only a suggestion, a target for which we strived. Now it is the rule.

Whenever life presents unempected "inputs", as if testing our combat maturity, and whenever difficulties arise, we invariably turn to our main reserve—the enthusiasm of the people, their tremendous creative potentials, which are revealed and utilized here owing to competent organization and indoctrination. I cannot recall a case where the words of a commander or political worker, warmed by spiritual passion, did not stir the soldiers to action.

At the beginning of the training year we decided to improve the unit's training material base. We were unable to begin this job in the "off-season" period—that is, before the start of the training year, because we the missilemen do not have an "off-season"—our combat duty is perpetual. But after all, it is impossible to improve the trainers and simultaneously use them in the training of the combat crews. What were we to do? We got the help we needed from our neighbor, a unit with which we compete. They placed their training resources at our disposal. And we on our part tried to finish the work we started in the training building as quickly as possible.

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The largest burden fell upon specialists of the subunit commanded by Captain S. Ignatenko. Under the guidance of Major V. Pokin, a staff officer and the chairman of the unit's training methods council, the innovators successfully moved toward their target. No matter when one entered the training building, the air Was always saturated with the odor of melted rosin—the efficiency experts were laboring enthusiastically. Naturally, no one forced captains V. Polukhin, V. Tribushni, and I. Khakimov to work in the training building from early morning to the late evening, but the officers know they had to! And therefore they labored on, even sacrificing their own free time.

No one could be happier than they when the improved trainers began to show "signs of life". Then began the work of orchestrating the devices, making them work together. Once again the restless evenings, troubleshooting, and failures. But in the end there was cause for joy: The new training complex began to work smoothly. For practical purposes it now minimizes the conditionality that is generally unavoidable when training missions are performed in the classroom.

As we can see, the effort to improve the training material base took too much time away from subunit commander Captain Ignatenko and his subordinates. This immediately had its effect. Soon after, specialists of one of the crews received a grade of "good" for the performance of its combat duty. Prior to this they had never dropped below the "outstanding" level. Other signs indicating that the quality of the training missions had decreased somewhat began to appear in the subunit as well.

The unit staff and the party organization, headed by Captain I. Rykov, took the necessary steps to rectify the situation. Staff officers and active party members meticulously analyzed the organization of training in the subunit, and they made an effort to see that the advanced skills and the recommendations developed by the unit's training methods council on how to conduct drills and training sessions would be utilized more fully.

There is something else I would like to mention. As soon as it became known that this subunit was having difficulties, many officers and experienced specialists from other collectives came to the aid of their comrades, their rivals in the competition. This is good to know, because it says that people are far from indifferent as to how their neighbors are doing. Such manifestations of friendship and mutual assistance are not rare, moreover.

This is not the first year that the subunits commanded by officers Yu. Danilin and V. Siukhin are competing against each other. The scores of the first collect we are "traditionally" higher. But this year Captain Siukhin's subordinates made a noticeable step forward and, as the saying goes, they are nipping at the heels of the competition leaders. Now did they achieve such progress?

Before answering this question let me touch upon the working style of Major Danilin, on the atmosphero which has established itself in the subunit. Major Danilin is one of the most experienced commanders, an outstanding teacher, and a proficient missileman. A sense of the new, purposefulness, persistence—he has all of these qualities. But we should lay special emphasis on Major Danilin's ability to work with people with the help of the party organization, to invest his knowledge, experience, and spiritual passion into this work.

The subunit commander does not try to always "invent" something new. He makes use of the same forms and methods of ideological indoctrination used by other commanders. But he invests his entire spirit and all of his talent into them. All measures implemented in the subunit are always closely associated with the concerns and plans about which the life of the people centers. And naturally, communication is frank, business-like, and concerned.

So it was at a recent party election meeting. The subunit was deemed the unit's best on the basis of the year's results, but the communists viewed the results they achieved from a critical angle, they revealed shortcomings, and they pondered over them, over how to make each party member's and candidate's life position more active. They do have experience in this—a sizeable amount at that. We could at least recall what happened with Warrant Officer P. Berezin.

There was a time when Berezin kept his nose clean and did his duty, but nothing more. There was a certain sense of estrangement, of alcofness in his attitude toward his work. In a word, the man felt out of place.

Captain A. Negorodov, the subunit's party organization secretary, Major Danilin, and other communists talked heart-to-heart with the warrant officer several times. They learned that he did not take joy in his work, and therefore that he did not see any possibilities for revealing his full potential in the areas for which he was responsible. The equipment was dependable, and for practical purposes nothing ever broke down--what was left for him to do? Just monitoring and maintenance. And this, he thought, offered no room for displaying his skill.

Now that the causes became known, it was easier to determine the ways and means of influence upon the individual. The subunit commander took council with staff officers and members of the training methods council. Soon after, Warrant Officer Berezin was given a special assignment, and then another, and so on. These assignments were chosen in such a way as to insure that they would satisfy his interest in technical matters to the fullest. Berezin labored over these assignments without a thought for personal inconvenience. Later on he himself began taking the initiative to improve the order of maintenance of the machine units and systems, though naturally with a consideration for the requirements of the manuals.

After the unit carefully discussed his suggestions, one of our directorates began showing an interest in them. They were placed at the basis of recommendations for all of the units. One had to see how much pleasure Warrant Officer Berezin expressed on learning of this. His spirit soured, and he felt himself capable of great deeds. Such inspiration in the work is invariably transmitted to comrades, giving birth to good initiatives.

This brings us back to the question as to how Captain Siukhin was able to bring his subunit up to the lead in the competition in such a short time. When rivals do not simply keep an eye on each other's successes, but instead study the experience as they should, and try to "dig down" to its very core, naturally the commanders of both rival subunits benefit. So it was in this case. Captain Siukhin tried to learn from Major Danilin his ability to inspire the individual, to gain his support, to support him with warm words and kind advice.

We know that work with people is a complex art, and that it cannot be mastered in an instant. But as in any other matter, it is important to be consistent, persistent, and patient. Success will come, especially if a dependable comrade such as Najor Danilin is at your side. Naturally he did not give Siukhin ready-made recipes that fit all of life's situations. But Captain Siukhin did learn what was most important—a creative, individual approach. It is too early to say that Captain Siukhin will be successful in all of his work with people. But his growth as an educator has been extremely noticeable. And the fact that the subunit has earned the "outstanding" title speaks for itself.

Incidentally Major Danilin also managed to learn many useful things from his neighbor. Captain Siukhin's subordinates were among the first to begin using technical resources to test crew training—a video tape recorder in particular. Examination of recorded training sessions help specialists to recognize mistakes and inaccuracies during combat training, and to find ways to correct them. Also deserving of attention are the training innovations they came up with in relation to developing mutual exchangeability in the crews. All of this at first became a topic of careful study in the subunit commanded by Major Danilin, and later it was introduced into practice.

The solemn ritual of assuming combat duty came to its end. Officers G. Shutov, Ye. Chepurnov, S. Krasnitskiy, and V. Bokov, Warrant Officer A. Tuturov, Senior Sergeant S. Ivanov, and privates M. Tsygankov and M. Glukhov passed in formation. These are our best people, our pride and joy.

The unit's personnel are working with great patriotic inspiration to greet the 26th congress of our Communist Party. The results of the past year are a substantial contribution to this work. The unit was awarded the Banner of the USSR Minister of Defense for bravery and military valor.

Naturally, we cannot help but feel pleased with the successes. But we cannot say that all reserves have already been exhausted, and that all we have left to do is to secure our achievements. To think in this way would mean to predestine ourselves to failure. An analysis of the year's results would show that we have unutilized possibilities for combat improvement. We still have certain servicemen who work without inspiration. Our efforts at introducing advanced skills are not always effective. This means we must improve the quality of our work even more. We will continue to encourage our people to work selflessly, creatively, and with full effort in the new training year.

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18 Feb. 1981



